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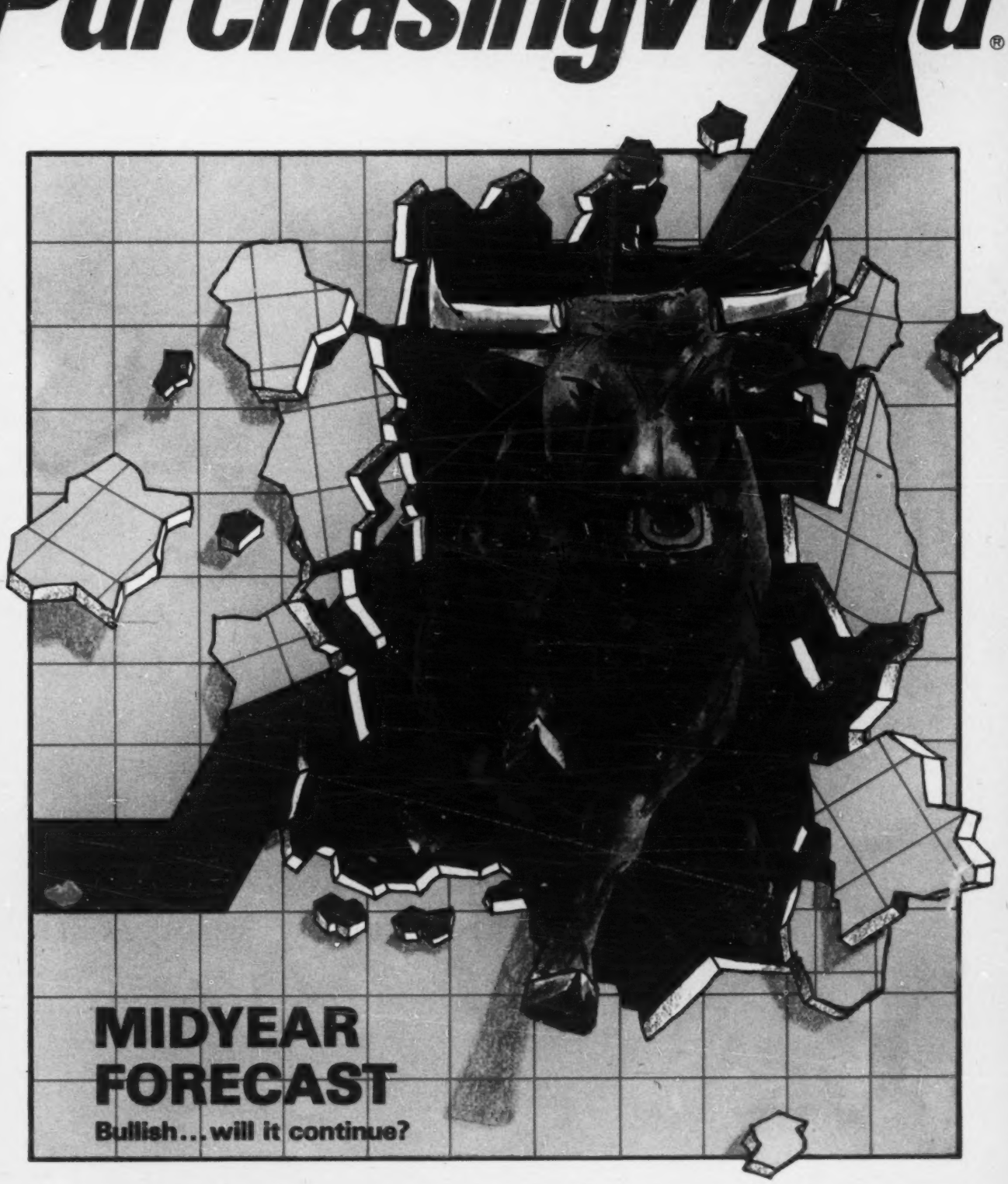

MIDYEAR FORECAST

Bullish... will it continue?

You can do your own forecasting

Vendor rating boosts on-time delivery

Let your PC do the reporting

PurchasingWorld®

Helping you manage the business of buying

July 1986 Vol. 30 No. 7

Midyear economic report

40 Nobody has tamed this bull economy yet
How bullish you can afford to be in the next six months may depend upon lawmakers' moves on taxes and spending. These will directly affect demand, prices, and interest rates. *PW*'s veteran economist, Dr. Louis J. Paradiso, offers advice for PMs: Watch congress and your inventories closely.

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The nation's top executives say that demand will rise 5% for the year—up dramatically from the 3.4% that they predicted just six months ago. But all other things should assure another year of more-than-ample supplies and a continued buyer's market.

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PW PREDICTS

Prices: more restraint than expected

The near-term industrial price outlook couldn't be more optimistic. And a number of factors indicate continued restraint:

- **The petroleum market remains shaky.** Crude oil tags are again on the offensive after a spring rally.
- **The declining dollar is having a modest impact.** Rather than raise prices and lose market share, many overseas producers are apparently willing to absorb much of the differential in the form of lower profit margins.

- **Most of today's markets are still amply supplied.** Latest figures indicate that producers are operating at only 86% of their production potential—with little change anticipated for 1987.
- **Labor unions are adopting a defensive posture.** This position has virtually ruled out any major upward push on wage costs.

The labor situation is perhaps best summarized in Dr. Louis Paradiso's mid-year economic outlook. Paradiso sees unit labor cost increases—a key determinant of industrial prices—remaining virtually unchanged over the remainder of the year and rising by less than 1% in early 1987. You have to go back more than 20 years to find this kind of non-inflationary labor cost trend. And it's something which can't be underestimated, since labor accounts for roughly two-thirds of every sales dollar.

It's no wonder that Paradiso sees Uncle Sam's finished producer goods price index racking up its first negative reading since 1963. *PW*'s survey of the big four leading econometric models (Chase Econometrics, DRI, Wharton, and Merrill-Lynch) reveals that they, too, see finished product declines—ranging anywhere from -0.2% to -1.6% for all of 1986.

Even suppliers (who tend to see things through rose-colored glasses) have tamed their price expectations. Right now they're calling for only a 0.7% increase in the goods they sell. It's a far cry from the 5%+ increases of just a few year ago.

The same price index projected by the four econometric models has decelerated even more—from +2.1% at the beginning of 1986 to -0.9% currently. Supplier forecasts show much the same pattern.

Curiously enough, *PW*'s own readers come up with the biggest estimated increases for the current year—3.1% based on a new survey. But here, too, there has been a slight deceleration.

The improving price outlook is not limited to the U.S. The European Economic Community, in a newly revised forecast, sees its member nations' price level (GNP deflator basis) at only 3.5% this year.

While no one expects finished producer prices to remain negative, the consensus is that increases will be modest.

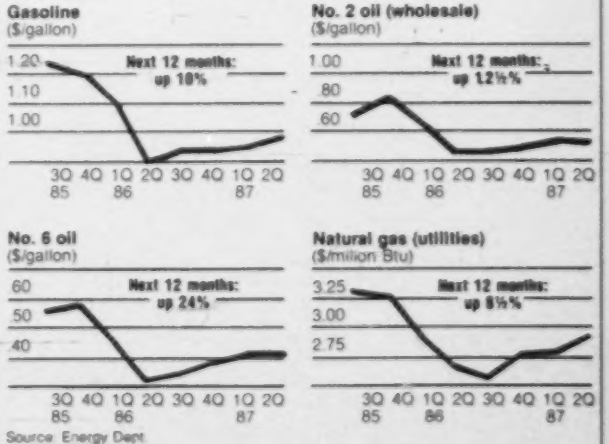
Energy prices

There's good news on the energy price front. Although most types of fuel and power have bottomed out, any increases over the next four quarters will be small.

These projections, prepared by the Department of Energy, assume only a small increase in crude oil prices—perhaps to near $18/bbl by early next year. Here are DOE's more specific forecasts into mid-1987:

- **Gasoline:** A slow price incline will bring average pump prices up to near $1/gallon by next spring—about 9¢/gallon above recent levels.
- **Heating oil:** Prices are expected to hit a low point in the third quarter, the period of lowest demand for this fuel. Assuming normal winter weather and normal inventories, prices should rebound this winter, but only to 56¢/gallon at wholesale—33% under 4Q 1985 highs.
- **Residual fuel:** Prices, which sunk in the second quarter of 1986 to 33¢/gallon, will slowly recover. But even the 41¢/gallon quote projected for early next year should leave these tags 30% under late 1985 levels.
- **Natural gas:** Residential sector prices will decrease 4% this year, while prices to electric utilities may fall by 20%.
- **Electricity:** Continued lower capital costs and an expected decline in the costs of all fossil fuels to electric utilities are expected to keep rates nearly flat, offsetting cost increases resulting from new capacity. This trend is also expected to continue through the first half of 1987.

Energy tabs: four views



Source: Energy Dept.

PW PREDICTS

Chemicals

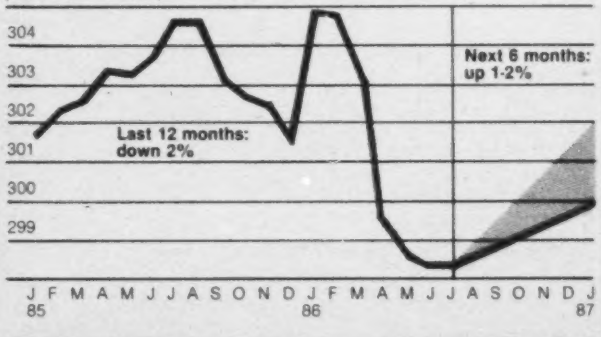
CURRENT SITUATION: Price declines—sparked by the recent oil price slide—have knocked 2-3% off industry averages in the past few months. The drop has been even more precipitous in petrochemicals—overall organics are down 6-7% since January. Specific product declines have been even more spectacular. Recent lows in ethylene and benzene are 20% and 30%, respectively, under pre-oil-drop levels. **Chemical output is running about 3-4% above year-earlier levels.**

DEMAND: 1986 seems to be shaping up well and 1987 looks almost as good. Industry executives, responding to a recent survey, peg the advance at close to 6%. But given normal supplier over-optimism, this may be high. Gains do seem likely to top the nation's expected 2.5-3% GNP advance. **Wharton Econometrics figures on about a 5% production gain for 1986.**

SUPPLY: Currently low operating rates tell the story. At the beginning of the year, average utilization was only about 80%. Even with an expected 5% increase in 1986 input, no big increases are expected. Reason: U.S. firms expect to up their potential by about 3% this year which would limit any overall increase in operating rates to around 2%. **And the glut is likely to remain next year when another 3.5% increase in production potential is projected.** There are plenty of imports to add to the overall supply.

PRICE OUTLOOK: Much depends on what happens to oil. If you accept projections for only steady-to-slightly-higher crude oil—and **overall chemical price averages will rise only 1-2% through December—leaving quotes under January 1986 levels.** There are exceptions. Look for fair-sized boosts in organics such as chloralkalis. But even here tags will remain far under official lists. **Any increases in 1987 will also be quite modest.**

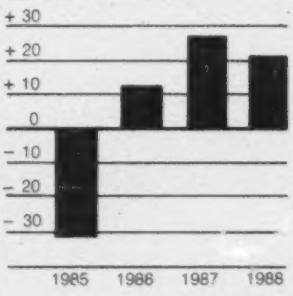
Chemicals & allied products
(Index: 1967 = 100)



Semiconductors

Demand seems to be temporarily leveling off after several months when orders were consistently outrunning shipments. Nevertheless, the industry remains optimistic over the longer pull. The Semiconductor Industry Association, for example, sees total solid state sales in the U.S. advancing 11.5% this year (to $9 billion). More important, things are really expected to take off in 1987 and 1988 when gains of 27% and 21%, respectively, are anticipated. Also just as IC sales felt the impact of the recent recession more than discrete devices, so too will IC sales gain more in the current recovery.

U.S. semiconductor demand
(% change in $ sales)



Office automation

The big push to populate desks with PCs is slowing down. The emphasis now seems to be more on getting additional value out of previous purchases—primarily through multi-user systems to which the PCs will attach. That's the conclusion of a new survey on office automation trends by Hammer & Co. The New York-based market research firm adds that there also is more interest in upgrading and enhancements to existing systems. Another key finding: Users prefer to maintain long-term relationships with their preferred vendor for total system support.

Aluminum

Prices are mixed—with recent declines in common alloy sheet and ingot offset by new advances in can body stock and heat-treated sheet and coil. More significant: Scattered work stoppages are being viewed by the market as a non-event—as earlier buyer hedging assures adequate supplies for some time to come. Producers, too, are well stocked and said to have in excess of a 45-day supply of semi-finished products. Also likely to put a lid on near-term price hikes are new Free World consumption estimates that put 1986 chewup at only 12.5-12.6 million metric tons—actually under last year's levels.

Zinc

What a difference a few months make. Specifically, the beginning-of-the-year glut has suddenly turned into a rather snug market. Result: Dealer prices have moved up into the upper 30s—far above the 29¢/lb low prevailing in early January. Demand gains as well as production curtailments are major

factors—with some analysts talking in terms of a 5-10% consumption rise because of increased use of corrosion-resistant materials by the auto and construction industries. Nevertheless, look for prices to top out—as the slow summer season approaches and rising prices encourage reactivation of shut-down facilities.

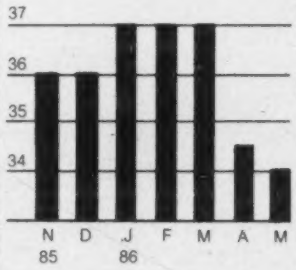
Lead

Producers are attempting to shore up prices—following recent spring easiness. Aim is to bring quotes for the key pipe grade up into the 30¢/lb-plus range—with much of the pressure coming from recent tightness in VCM feedstocks. Another factor suggesting bullishness is good demand from the booming construction industry. As such, overall PVC demand should advance 3-4% this year. Coupled with a 2% capacity reduction, this suggests a big five percentage point jump in operating rates.

Polypropylene

Declining propylene feedstock costs are putting downward pressure on the resin. At latest report, the bellwether homopolymer grade was fetching only 33-35¢/lb—off about 1¢/lb from previous levels. But while the cost picture is pointing to lower price levels, the underlying supply-demand price outlook remains quite bullish. Right now, for example, the industry is talking in terms of a strong 7% shipment gain—on top of last year's even larger 9.5% advance. Result: Relatively snug supplies. Indeed, operating rates could be approaching the 94% level this year—even with an expected 5-6% increase in new production potential.

Polypropylene
(Homopolymer market prices ¢/lb.)



Selenium

Prices have dropped by close to 30% since the beginning of the year—bringing this minor metal down to under $5/lb. Nor is any bounceback likely as demand remains pretty much at last year's disappointing levels. One of the problems is substitution—with losses to high-purity silicon already apparent in semiconductor applications in rectifiers. Some photoelectric applications are also under attack—by silicon, cadmium, tellurium, gallium, and organic photoconductors.

Chlor-alkalies

Chlorine is continuing to move up the price ladder—with quotes to the VCM

Copper

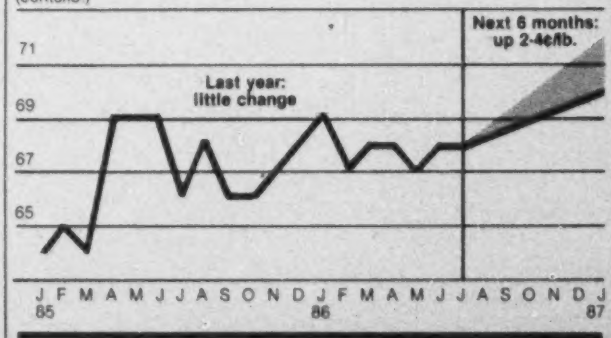
CURRENT SITUATION: The red metal continues to mark time. One factor holding tags in check is the absence of severe supply disruptions—despite scattered strikes both here and abroad. There are a few bullish developments. **The heavy inventory overhangs of 1984 and 1985 have all but disappeared** and demand hasn't been all that bad either, with a major assist coming from the booming construction industry.

DEMAND: U.S. consumption of refined metal should run at 2.2 million tons this year—a shade above last year's level. Gains, aside from construction, could come from the electric-electronic and consumer goods sectors. Both the transportation and capital goods markets (a quarter of all copper use) will be hard put to equal last year's chewup. **A new Bureau of Mines study pegs the increase at 1.9% due to substitution**—by plastics in plumbing, fiber optics in telecommunications, and aluminum in auto radiators.

SUPPLY: There's more than ample tonnage around. Even with U.S. mines, operating at 60% or less of their potential (turning out only about 1.1 million tons a year), shortfall is being more than made up by African and South American producers who are going all out in their drive to earn badly needed foreign exchange. **Dependence on imports could rise from 24% of our needs to more than 35% by 1990.**

PRICE OUTLOOK: Any near-term advances are likely to be small—both because of the slow demand gains and more-than-ample supply. **Best bet: A slow irregular rise into the low 70s by year-end**—with another few cents added on in early 1987 if world demand holds up. Don't expect any big runup. Once prices approach 75-80¢/lb, there could be a lot of mine reopenings here in the U.S. Another price restraint: improved efficiency with some U.S. mine costs near 65¢/lb.

Producer copper
(cents/lb.)



PW PREDICTS

Facsimile machine

Count on fairly steep declines in facsimile machine prices over the remainder of the decade. A new Frost & Sullivan study says that over the 5-year period ending in 1990, tags on these versatile machines will drop from 6-19% per year.

But averages can be deceiving. Group III types—those that require one minute or less transmission time on a voice (analog) telephone network—should fall relatively slowly after the end of 1987 (see chart).

Lower tags (combined with technological improvements) will translate into a big jump in demand. Current projections made by Frost & Sullivan predict a more than 50% increase in annual shipments over the next five years—from 99,000 units in 1985 to about 159,000 by 1990.

Group III machines will remain the largest segment of the industry. They accounted for 88% of last year's shipments and will capture a 92% share by 1990.

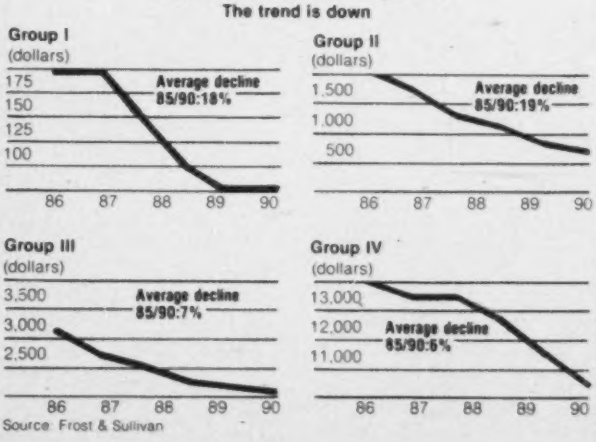
On the other hand, the slow Group I (requiring six minutes time on a telephone network) are already being phased out.

The newest types (Group IV)—which transmit in less than a minute over data (digital) lines will be slow to catch on but should accelerate after 1987 and capture 6% of the market by 1990, as digital lines become widely available over public access networking.

As for suppliers, all of the current equipment in the general business market is Japanese—and Frost & Sullivan sees no change. Note, too, that U.S. facsimile vendors are now distributors of Japanese products and some of these vendors are actually subsidiaries of Japanese manufacturers.

Facsimile machine prices

The trend is down



Source: Frost & Sullivan

market moving up to near $150/ton—well above the low 120s prevailing as recently as this past January. Co-product caustic soda is also showing signs of life—with off-list quotes targeted to advance about $10/ton. Behind the jump: improving operating rates—with the industry reported to be near the 90% level—the highest in over two years. And this key price determinant could move even higher as additional capacity shutdowns are announced.

Communications equipment

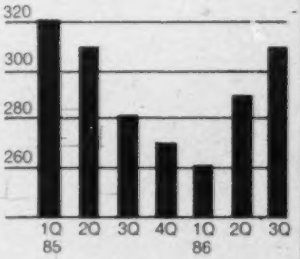
Competitive infighting in the PBX market is pushing per-line quotations down into the $500-$900 range—well under recent $1,000-$1,200 levels. While certainly not ignoring large corporate end-users with their sweeping networking and data requirements, suppliers are paying increasing attention to small and mid-range users. Competition is said to be fiercest at the low end—but good bargains are also cropping up in more expensive offerings. In any case, the squeeze is so severe that an industry-wide shakeout—occasioned by low or negative margins—may not be all that far off.

Paper

The weakening dollar—by spurring exports—is having a firming effect on prices. Signs of the times: Several mills have announced a $20/ton increase in linerboard (bringing tags up into the $310/ton range)—though it may take a few months for this new quote to become fully effective. Not surprising, end-product corrugated containers have stabilized—with even some scattered increases reported. Other quotes moving up include uncoated white paper, market pulp, and several grades of waste paper.

Linerboard

($/ton)



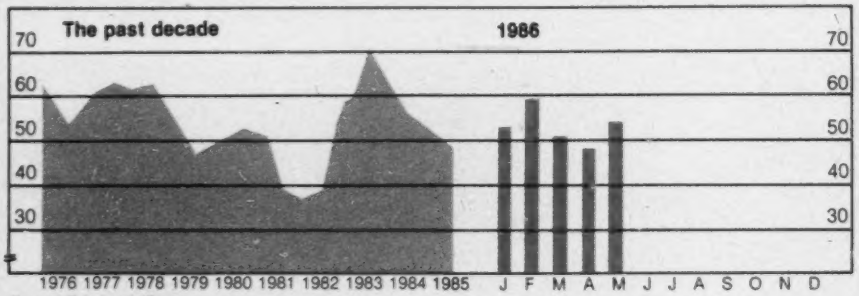
Computer-aided engineering

Hardware tags continue to decline—with quotes on some basic 32-bit workstations dropping down below $15,000—several thousand under previous levels. And further declines toward $10,000 are expected by year-end or early 1987. That's the level analysts feel will be necessary to induce companies to put one workstation on every desktop. But even then there could be selling problems—both because of obsolescence fears and the lack of standards. On the latter score, there are said to be plenty of buyers holding off—confused on which way to move.

BUSINESS DATATRAK

NAPM business barometer

Based on five indicators (employment, inventories, new orders, production, vendor performance)



Source: Commerce Dept.

KEY ECONOMIC TRENDS

Can economy's pace continue?

The next two quarters seem to be shaping up pretty much like the last two: basic underlying strength but with few indications of any really significant near-term upward surge.

True, the NAPM Business Barometer—a lead indicator of activity a few months down the pike—has improved a bit from late spring levels (see chart above). But even its latest reading of 54.4 isn't all that much above the neutral 50 mark—and it's just about on a par with levels of last year and early 1986.

The good-but-hardly-great near-term outlook is perhaps best characterized by the three economic sectors detailed in the charts on the right. Sure, the first (auto sales) seems quite bullish—with some 11.5 million cars at annual rate clearing the market during the last reported month.

But the question arises: Can this pace continue?

A positive answer is not all that certain. Thus consumers responding to a new Conference Board survey indicate they may well cut back on auto purchases in the months ahead. Specifically, only 9% say they plan on a purchase over the next six months.

The construction sector, too, may not be quite as strong as commonly supposed. Reason: While everybody is applauding housing starts (they look to jump 150,000 units this year—to near 1.9 million), people tend to forget about weakness in other areas—notably commercial and industrial building.

A more balanced overall picture here is presented by construction awards. Note how they have been zigzagging all over the lot in recent months. It's something that suggests a lack of a broad-based underpinning needed to push overall 1986 totals significantly above those of the past year.

Still a third near-term brake on major business advances would have to be lackluster producer investment. Note that for a year now, machine tool orders (a sensitive indicator of capital spending) has been bouncing along on a fairly low plateau.

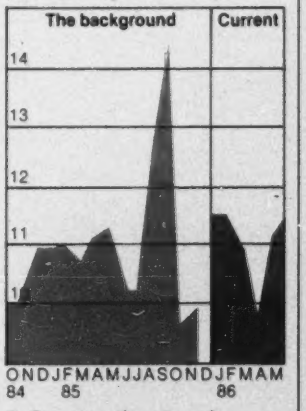
The implication is clear: Capital spending isn't going anywhere—at least not over the next few quarters.

Further confirmation of a disappointing plant and equipment market comes from new appropriations (a lead indicator of actual spending). The Conference Board notes that the total came to only $24.5 billion in the first quarter 1986—down $2.7 billion from 1985's last three months.

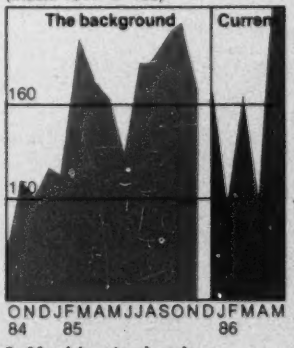
But it's important to see the forest as well as the trees. Thus while the three sectors detailed do not seem headed for any spectacular gains in the months ahead, there are other,

Leading indicators

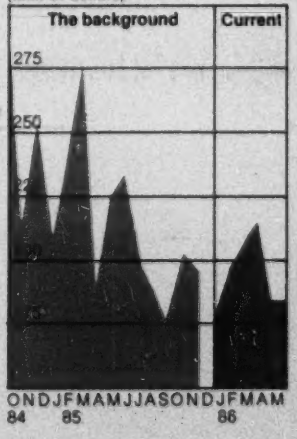
1. Auto sales
(Mil., seas. adj. annual rate)



2. Construction awards
(Index: 1977 = 100)



3. Machine tool orders
(Mill. of dollars)



more basic, factors at work—ones that would seem to guarantee a continuation of the business recovery into 1987.

Indeed, it's hard to see otherwise—given such plus factors as (1) low inflation rates, (2) little or no upward labor cost pressure, (3) relatively cheap money, (4) low stock/sales ratios, and (5) good supply-demand balance.

Historically, all of the above have tended to deteriorate in the mature stages of a recovery. The fact that they haven't done so this time around cannot be underestimated.

And by next year things could be a lot better here—as rising import prices and falling export prices finally begin to show results. Right now, it looks as if the trade deficit could drop by some $40 billion—to near $100 billion—enough to add 1% or so to overall 1987 GNP totals.

Pare your warehouse costs

If you are trying to cut distribution expenses, look carefully at your warehousing operation, says a new Davis Database study. In most recent years these costs have stayed close to 1.9% of sales—despite all the new technological cost-cutting innovations.

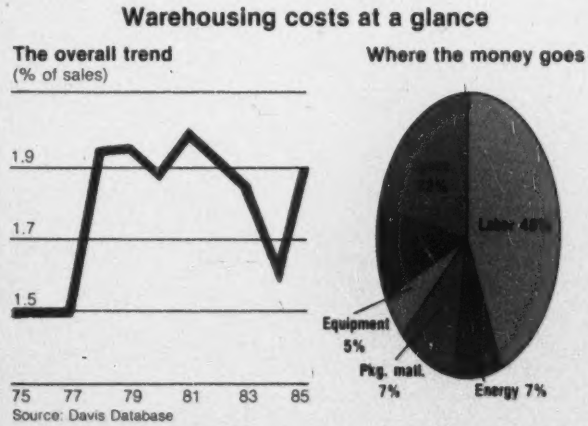
That's not to say that some firms aren't making progress in improving warehouse efficiency. 38% of the firms queried by the NJ-based consulting firm actually did manage to shrink their warehousing outlays. The average cost reduction last year was put at 19%. On the other hand, 40% of survey respondents saw their costs advance over this period by an average of about 30%.

The point to keep in mind: The difference between the average firm reducing its warehouse costs and the average firm experiencing higher costs is 49%—or 0.93% of sales.

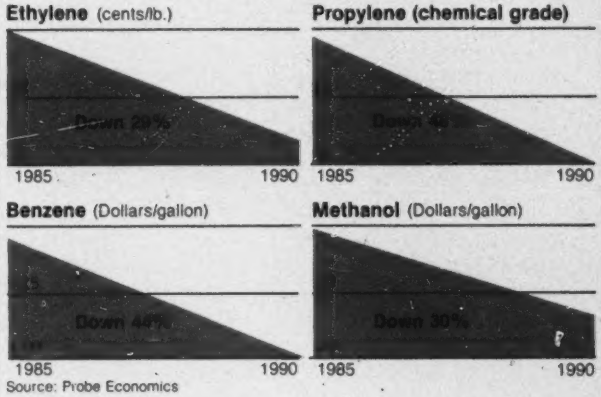
How can one jump onto the cost-cutting bandwagon? The Davis Database survey suggests three key areas:

- **Improved equipment:** Swing forks, turret trucks, and other very narrow aisle equipment and reach-type trucks provide good opportunities for better storage utilization.
- **More computerization:** Small warehouse control computers, coupled with transmission systems, digital readouts, and optimizing software, are providing 25-40% labor productivity increases.
- **More reliance on reader devices:** Labor and scanner equipment can markedly improve warehouse record accuracy and tie directly into the control computers—allowing management of the entire inside materials flow.

Warehousing costs at a glance



The 1985-90 petrochemical price scenario
(Assuming a $12.35/bbl oil price in 1990)



Source: Probe Economics

What would $12/bbl oil mean?

What happens to petrochemical prices and markets over the long pull if oil remains weak—with crude petroleum down to near $12/bbl by 1990?

Probe Economics, a Mt. Kisco, NY-based consulting firm, provides some interesting projections. Assuming this "oil crash" scenario, analysts at the firm put ethylene tags at less than 11¢/lb by the end of the decade—and polypropylene at an even lower 8¢/lb. Benzene and methanol, two other volume chemicals, will be a lot lower too—with their 1990 quotes put at near 75¢/gallon and 28¢/gallon.

Industry structure would undergo considerable change too. Overall chemical output would increase because aggregate demand moves higher and because the prices of synthetic materials (made from petrochemicals) would fall relative to the prices of natural materials.

Naptha would become the favored ethylene feedstock, resulting in large amounts of propylene byproduct. In addition, propylene alkylate would be rejected from the gasoline pool because of low gasoline prices and high natural gas prices relative to crude oil. Propylene would fall in price relative to ethylene, thereby creating a competitive advantage for polypropylene *vis a vis* polyethylene.

Elsewhere, low gasoline prices would prevent methanol and other oxygenates produced from natural gas or organic matter from finding their

way into gasoline.

Also, with oxygenates and alkylates priced out of the gasoline pool, the need for aromatics as octane enhancers would increase. Result: Aromatic prices would rise relative to crude oil prices.

Finally, weak oil prices would hurt chemical producers in energy-rich areas such as Saudi Arabia. But European and Japanese chemical industries would rebound. The U.S. is caught in the middle.

CURRENT PRICES

Has oil slump run out of steam?

The downward impact of oil on overall price averages finally seems to be running out of steam.

The latest industrial producer price index, for example, moved up over the last month. True, the gain was a fractional 0.1%. Nevertheless, it's in sharp contrast to the previous three months when this bellwether inflation yardstick showed a cumulative 4% decline.

Zero in on the energy sector and you can see the reason for the change. This last month, a sharp 11.2% increase in gasoline overwhelmed continued weakness in home heating oil, jet fuel, residual oil, liquid petroleum gas, and diesel oil. The result is that overall fuel and power costs actually registered a 0.7% increase.

The basic downdrift continues in some downstream petroleum products, however. For instance, lower feedstock costs help put downward pressure on organic chemicals, synthetic rubber, and synthetic fibers and fabrics—all of which registered declines.

Elsewhere, upward and downward movements pretty much offset each other. In metals, easiness in steel and in some of the minor metals like selenium and cadmium were balanced out by rises in both lead and zinc.

Capital equipment averages were also essentially neutral—as an advance in heavy trucks was cancelled out by small declines in transformers, printing trade machinery, and steel power boilers.

A similar trend was noted in industrial components. Electric motors, metal fasteners, and rubber belts and belting all advanced. But declines were registered for pumps and compressors, scales and balances, and tires

This month's breakdown

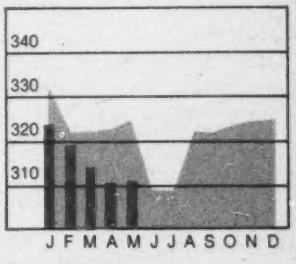
	Latest level (May)	% change from: Month ago	Year ago
Bearings	355.7	0.0	1.0
Bolts, nuts, etc	279.0	1.3	0.6
Chemicals, inorganic	296.3	0.0	−0.9
Chemicals, organic	327.4	−2.4	−7.3
Concrete products	326.2	−0.2	1.9
Corrugated cartons	263.7	0.4	−5.8
Cutting tools, small	291.6	0.3	1.8
Electric lamps (bulbs)	346.1	−0.6	0.5
Electronic components	200.6	0.0	1.6
Fans and blowers	363.0	0.1	1.1
Foundry and forge products	364.8	−0.1	0.6
Fuel oil (residual)	523.1	−6.3	−50.6
Furniture, commercial	316.3	−0.2	3.0
Gasoline	378.7	11.2	−34.3
Glass, flat	230.1	0.0	2.3
Glass containers	399.6	1.4	6.1
Gypsum products	360.3	4.4	8.2
Hand tools	382.9	0.0	2.5
Hand tools, power driven	236.8	0.0	2.8
Industrial furnaces	397.3	0.2	3.3
Integrating and measuring instruments	235.4	−0.4	1.5
Internal combustion engines	352.5	−0.1	3.6
Lubricating oil	366.8	−2.8	−1.8
Lumber millwork	316.8	0.4	2.0
Material handling equipment	296.4	0.1	0.6
Metal containers	361.1	0.1	0.9
Metal mill shapes (nonferrous)	300.1	0.0	−4.8
Metal tanks	303.4	−0.2	−0.6
Motors and generators	351.8	0.6	0.0
Motor trucks	313.0	−0.1	5.9
Office and store equipment	154.1	−0.1	−0.4
Paperboard	266.3	−0.1	−5.0
Paper boxes and shipping containers	266.4	0.3	−2.7
Paper office supplies	239.6	0.3	−0.1
Paint	280.9	0.0	1.7
Plastic resins	294.5	−0.2	−3.6
Precision measuring tools	266.8	0.0	1.4
Pumps and compressors	359.6	−0.4	1.0
Refractories	373.1	0.1	0.5
Rubber belts and belting	338.1	0.5	−4.8
Scales and balances	231.1	−0.3	0.7
Steel products	347.6	0.8	−4.6
Switchgear	286.0	0.1	1.7
Textiles, synthetic fibers	149.8	−1.1	−4.6
Textiles, gray fabrics	150.6	−0.2	−1.0
Tires and tubes	235.7	−0.3	−1.4
Transformers and power regulators	232.7	−0.8	0.1
Welding equipment	300.2	0.1	3.0
Wire and cable	206.9	−0.1	1.3

Industrial prices

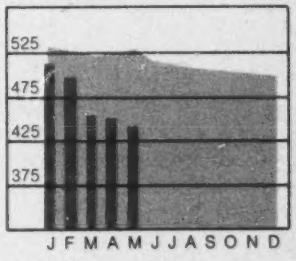
(Index: 1967 = 100)

1985 ■ ■ 1986

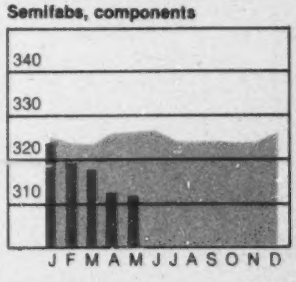
All items



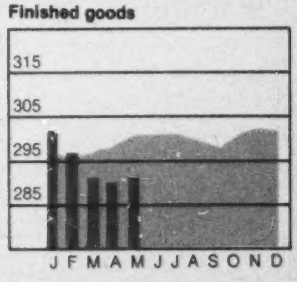
Raw materials



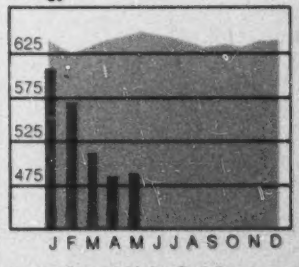
Semifabs, components



Finished goods



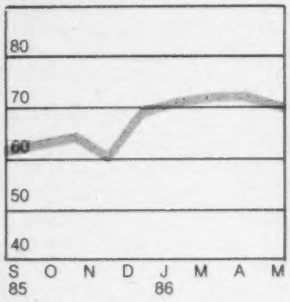
Energy



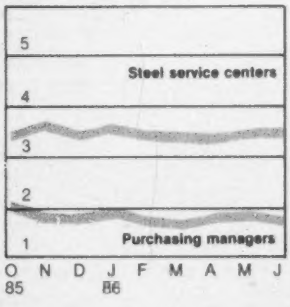
Source: Bureau of Labor Statistics

Steel

Operating rates

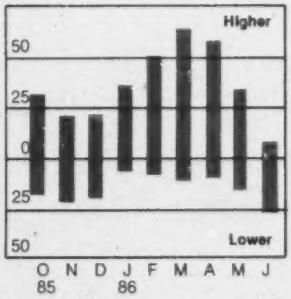


Inventories
(Months supply on hand)

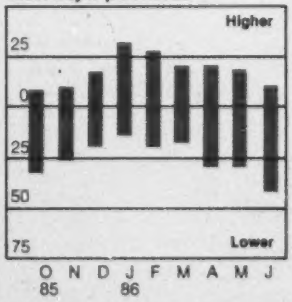


Demand
(Percent of respondents)

Service centers incoming orders



Steel buyer purchases



Source: Steel Service Center Institute, NAPM Steel Buyers Committee

and tubes.

About the only sector showing any meaningful rise was construction materials—with gains reported in lumber millwork, gypsum, asbestos, and cut stone. But even here there were partial offsets—principally in plywood and plastic plumbing products.

What about the next few months? One government spokesman says he expects pretty much the same overall pattern. He feels, for example, that gasoline tags will level off—and that the normal summer demand slowdown will keep suppliers from boosting prices on most industrial products.

STEEL SCENE

Summer hike curbing demand

The summer slump is expected to put its usual damper on steel demand, say both buyers and distributors. In the latest NAPM steel survey, 42% of metal buyers see decreased metal receipts ahead—more than four times the 10% who feel some near-term increase is likely.

Figures from the latest Steel Service Center Institute (SSCI) survey aren't much better. Distributors who anticipate declines in the incoming orders outweigh those who see increases by 26% to 9%.

But, as noted above, this could be due to seasonal factors. Andrew G. Sharkey, SSCI president, observes that "those who anticipate higher economic activity in the coming months still outnumber by two-to-one those with similar views a year ago."

The drop-off in demand may not reflect a decline in consumption so much as it does a shift back to inventory paring. Thus buyers now report just a bit over a 1¾ month steel supply—a significant drop from the near 2-month inventory level of the previous two months.

More important, the "inventory" effect on demand is likely to persist through 1986. Some 42% of PMs queried, for example, now contemplate steel stock reductions over the next six months—and not one single buyer is planning on any off setting increases.

Part of this inventory paring is probably due to a feeling of security about supplies and today's relatively short leadtimes. Few buyers seem concerned about availability—with the possible exception of scattered fears in the coated sheet area.

Import prices
(Compared to domestic)

Steel buyers

[redacted]VE 16%

[redacted]

[redacted]W 49%

SUBSTANTIALLY BELOW 3%

Service centers (carbon)

ABOVE 0%

[redacted]

[redacted]48%

10-20% BELOW 0%

OVER 20% BELOW 0%

Not surprising, service centers feel quotes are too low to permit adequate profits. Specifically, 32% of responding distributors are reporting lower gross margins than in the previous three months.

According to Sharkey, the service center industry's net profit margins for the past five years have averaged out at only near 1%—far under the 2.4% average figure of the past 30 years.

But cost pressure on these margins could soon be easing. Roughly half of the SSCI survey respondents (51%) now feel they can hold steel replacement costs over the next six months at or below current levels compared to 12% last month and 32% the month before.

This has to be good news for buyers because it suggests that purchase prices of steel won't be increasing. The failure of a hike in spring flat-rolled carbon steel also points in this direction, as do reports of discounting in recently boosted stainless flat-rolled products.

But steel buyers seem to be having more difficulty finding overseas bargains. Only 52% are now finding price breaks on imports and only 3% say the breaks are significant. Just two months ago, 61% were finding significant bargains overseas.

The decline of import bargains is also confirmed by service centers. For carbon steel, only 48% report import bargains and the discounts are all in the low 6-10% range. Compare this to three months ago when the comparable figure was 86%—with 4%

estimating the savings in the 11-20% range. The same trend is noted in overseas stainless.

There's also some indication that foreign sellers are not pursuing the U.S. market with their past vigor. 35% of the buyers and 13% of the service centers now say overseas mills are less active—with only 3% of both groups citing an increase in foreign selling.

PROCUREMENT STATUS

More speedups than slowdowns

The summer doldrums are back once again—with more-pervasive-than-ever buyer markets and even some further shrinkage in delivery times.

On the latter score, more buyers again report speedups than slowdowns—reversing the modest stretchouts indicated during the previous few months.

In a similar vein, PW's exclusive leadtime index is currently being clocked in at only 49—below the neutral 50 mark for the first time in a year. Implication: PMs reporting shrinking leads again outnumber those experiencing longer ones—albeit by only a modest margin.

And still more evidence comes from the latest NAPM Business Survey Committee "buying policy" tally. At latest report, 21% were buying hand-to-mouth—up from 16% one month earlier. And at the other end of the spectrum, only 13% were committing 90 days or more in advance—down from the 16% reading of the previous month.

Then, too, there's the dearth of items on the NAPM short-supply list. At last count, only one item, titanium dioxide, was noted as being tight. Point to keep in mind: This has been the only item to be so reported in almost a year and a half.

Nor do buyers expect any dramatic change come September and October when business normally picks up. One Gulf Coast PM says there could be some isolated stretch-outs. But given today's current oversupplied situation—plus a continued strong import flow—it now looks good for at least the end of the year.

The nation's factory operating rates would certainly seem to confirm this conclusion. Virtually every single one of the categories monitored by the Federal Reserve Board shows utilization running well under preferred levels—with little indication of anything more than a fractional creepup in the months ahead.

What about the longer pull? PW asked a special question in this month's procurement survey: Do you see any basic change in availability during the second half of 1987—when the recovery will be well into its fifth year? The answers: 91% "no," 7% "maybe," and only 2% "yes."

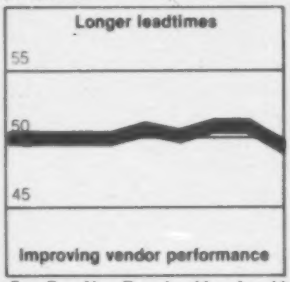
It's a situation that also helps explain continued inventory paring on the part of PMs. In any event, parers have outnumbered accumulators for almost two years running.

But this may be about to end—not because of supply worries but rather because stocks are now at rock-bottom levels—and will have to be augmented if companies are to keep up with the somewhat higher production schedules seen ahead. In the words of one buyer: "Tonnage may be going up a bit, but day's supply will stay pretty much where it is now."

Monthly procurement status report

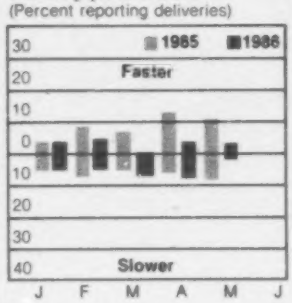
Leadtime Index

A "diffusion" index based on 158 key commodities. Above "50" indicates a tendency for leadtimes to stretch out. Below "50" suggests improving vendor performance.



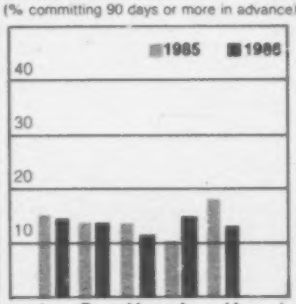
Delivery performance

(Percent reporting deliveries)



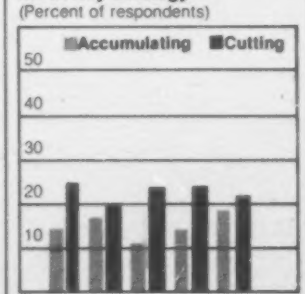
Forward commitments

(% committing 90 days or more in advance)



Inventory strategy

(Percent of respondents)



Source: NAPM

Leadtimes and availability

Chicago: A mixed picture here. Aluminum waits have dropped—reflecting end of hedge buying—with most items obtainable from stock or within 6-8 weeks. But copper products are out, with special sheet and coil needing 3-7 weeks. H-r steel is in a week (to 4-5), but narrow coated galvanized is out—to 7-8.

Cleveland: Gasoline and greaseproof papers are in a bit—to about 2-5 weeks. But some forms of plastic packaging have edged out to 4-6. But no change in shrink film (on demand) and PVC resins which have actually come in to 1-2. Also relatively easy: alloying material (on demand) and lumber (1-3 weeks).

Los Angeles: Things remain easy across the board—with key items available with these weekly leads: Galvanized steel (12-14), grey iron castings (8-10), brass castings (6-8), paints (3-5), standard fasteners (4), standard bearings (20-24), standard valves (10-12), steel strapping (2), and plastic resins (8).

Houston: Slack oil patch demand is keeping waits at these minimum weekly levels: High pressure heat exchangers (17-34), shop fabricated

carbon steel pipe (9-26), corrugated boxes (2), motor control centers (13-26), component parts (1-8), stainless fasteners (8-10), plastic bottles (4), and polypropylene (2-3).

Philadelphia: Some copper products have moved out—with waits on alloy tube as well as sheet and plate put in the 8-10 week range. But this is regarded as only temporary. No worries in steel, either—with (1) carbon bar hex and round shapes available in 14 and 6-8 weeks, respectively, and (2) stainless coil in 10-12.

Pittsburgh: Pretty much the status quo—with typical weekly waits as follows: corrugated, folding, and wirebound boxes (all 3-4 weeks), multiwall bags (6), all types of drums (1), plastic packaging material (2-3), lumber (3-4), coil-coating paint (4), steel strapping (2-3), PE and PVC resins (5-6), and manganese (8).

Leadtimes (in weeks)

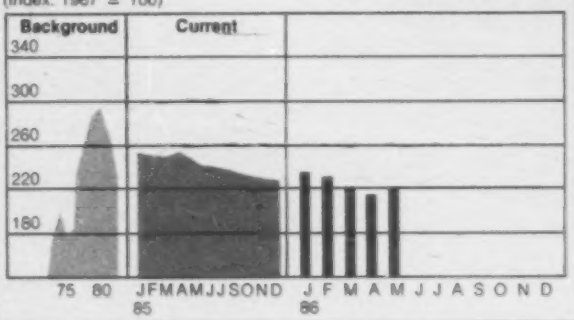
	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	4	4	4
C-R Sheet (Chgo)	7½	7½	7½
Plate (Phil)	3½	3½	3½
Plate (Chgo)	2½	2½	2½
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	5½	5½	5½
H-R Bars (Chgo)	4	4	3
Cold-Drawn Bars (Phil)	5½	5½	5½
Galvanized (LA)	13	13	7
Galvanized (Chgo)	7½	7½	7
Structurals (Chgo)	4½	4½	4½
Structurals (Hous)	17	17	17
Tubing (Phil)	5½	5½	5½
Grey Iron Castings (LA)	9	9	9
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	6
Pipe, Carbon (Hous)	17	17	13
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	14½	13	13
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	7
ICs (Linear) (Phil)	11	11	11
Motors (Phil)	10	10	10
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	9	9	9
Relays (Chgo)	15	15	15
Resistors (Chgo)	9	9	9
Resistors, Wirebound (Phil)	5	5	5
Transformers (Chgo)	10	10	10
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	1½	1½	3
Plywood (Chgo)	1½	1½	1½
Plywood (Phil)	1½	1½	1½
Softwood (Clev)	2	2	3
Softwood (Phil)	¼	¼	¼
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Napthalene (Chgo)	2	2	2
Paint (LA)	4	4	1½
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	2	2	2
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	1½	2½	3½
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	2	2	2
PVC Resin (Pgh)	6	6	6
Titanium Dioxide (LA)	1	1	1
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	2½	2½	2½
Cartons, Corrugated (Hous)	2	2	2
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3
Shrink Film (Chgo)	6	6	6
Shrink Film (Clev)	1	1	3½
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	1	1	1
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	3½	3½	3½
Glassine (Clev)	4½	4½	4½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	1	1	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NON-FERROUS			
Aluminum Coil (Chgo)	13	13	11
Aluminum Plate (Chgo)	12	12	10
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	12	12	9
Brass Castings (LA)	7	7	5
Brass Rods (Chgo)	7½	7½	5
Brass Sheet (Chgo)	5	5	5
Brass Tube (Chgo)	8	8	9
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6
Copper Tube (LA)	7	7	7
Copper Tube (Phil)	5½	5½	4½
Lead (Pgh)	2	2	2
Magnesium (Pgh)	2	2	2
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	2	2	1
Wire, Specialty (LA)	5	5	5
Zinc (Pgh)	2	2	2
MISCELLANEOUS			
Bearings, Domestic (Phil)	2	2	2
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	48	48	48
Compressors, Reciproc. (Hous)	39	39	39
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	7	7	5
Fasteners, Std. (Phil)	2½	2½	2
Heat Exchangers, Carbon-alloy Steel (Hous)	21	21	21
Heat Exchangers, Hi-pressure (Hous)	26	26	33
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	1½	1½	2½
Pumps (Hous)	24	24	24
Pumps (LA)	11	11	11
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	17
Welding Supplies (Hous)	5	5	5

BUSINESS DATATRAK

Raw material price barometer

Latest month	221.3
Month before	291.9
Year ago	252.0

(Index: 1967 = 100)



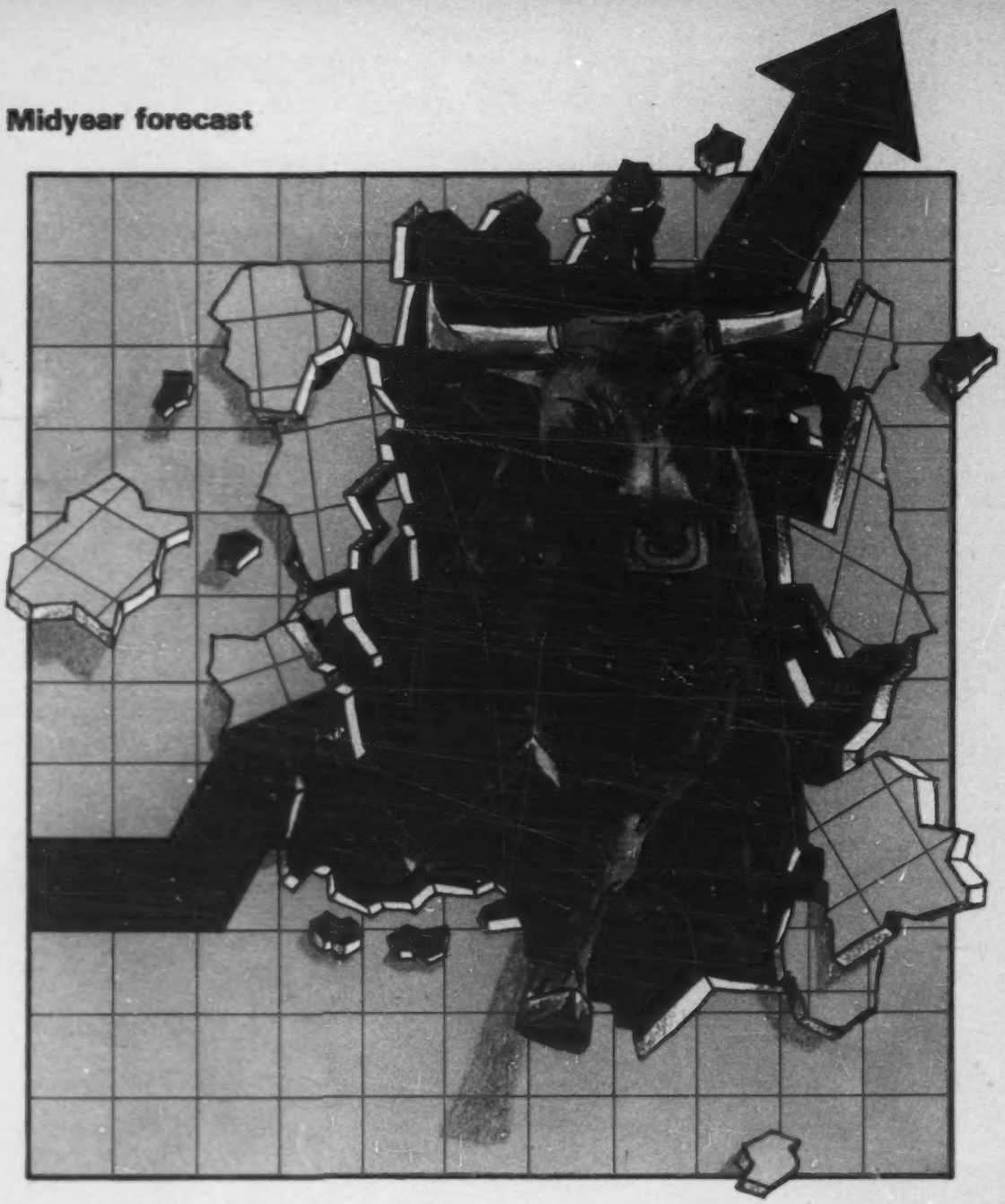
Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	367.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt	23.90	23.90	23.90
Steel, bars, dlvd. Phila., cwt., merchant quality	23.95	23.95	23.95
Steel, bars, Pitts., cwt.	23.95	23.95	23.95
Steel, bars, C.R., Pitts., cwt	31.00	31.00	29.25
Steel, plates, Pitts., cwt.	18.25	18.25	23.25
Steel, plates, H.R., Pitts., cwt.	18.25	18.25	23.25
Steel, sheets, C.R., Detroit, cwt.	25.90	25.90	27.10
Steel, strip, C.R., Chi., cwt.	36.18	36.18	35.30
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	.595	.595	.500
Antimony, in alloy, lb.	1.32	1.35	1.32
Beryllium-copper, cast ingot, lb.	5.35	5.35	5.35
Brass, red, 85%, [sheet], lb.	1.32	1.32	1.32
Brass, yellow, [sheet], lb.	1.27	1.27	1.27
Cadmium, ton lots, lb.	1.19	1.30	0.82
Copper, electrolytic, wire bars, refd., lb.	.68	.68	.69
Copper sheet, over 24 in., lb.	1.41	1.41	1.41
Lead, common, N.Y., lb.	.205	.190	.190
Magnesium, pig ingot, [99.8%], lb.	1.53	1.53	1.48
Mercury, 20 fl. lots, N.Y., fl.	244.00	253.00	295.00
Molybdenum, oxide, dealer, lb.	2.70	2.75	3.73
Nickel, cathode, dealer, lb.	1.94	1.90	2.51
Platinum, dealer, oz.	443.00	412.00	272.00
Silver, N.Y., oz.	5.47	5.23	6.18
Tin, Straights, N.Y., lb.	2.57	2.62	5.46
Zinc, Prime West, East St. Louis, lb.	.38	.33	.44
Zinc, die casting alloy, No. 3, lb.	.445	.415	.505
PAPER			
Uncoated book #3 offset, ton	850.00	850.00	850.00
Watermarked bond, ton	985.00	985.00	985.00
Gummed sealing tape, carton	16.34	16.27	16.50
Shipping sacks, ton	390.00	390.00	390.00
Solid bleached paperboard, ton	550.00	550.00	550.00
Kraft linerboard, 42 lb., unbleached, ton	290.00	290.00	320.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	.237	.237	.324
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.045	1.045	1.040
Cotton middling, 1", N.Y., lb.	.655	.645	.594
Printcloth, 48", 80x80, N.Y., spot, yd.	.70	.68	.60
Army duck, 37", 13 oz., yd.	1.48	1.48	1.70
Blended printcloth, 64", 78x54, yd.	.80	.80	.70
20s combed yarns	2.05	2.05	1.95
Wool tops, N.Y., lb.	2.00	2.00	2.10

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	.395	.395	.455
Ammonia, anhydrous, tanks, Gulf Coast, ton	90.00	100.00	N.A.
Benzene, petroleum, tanks, Houston, gal.	.82	.74	1.48
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	.58	.58	.58
Formaldehyde, USP, 37%, [12% to 15% meth.], tanks, lb.	.106	.106	.106
Glycerine, synthetic, tanks, lb.	.91	.91	.91
Methanol, any., tanks, 4,000 gals., f.o.b. Gulf Coast plants	.52	.52	.54
Naphthalene, crude, tanks, lb.	.22	.22	.22
Phthalic anhydride, tanks, lb.	.27	.27	.27
Polyethylene resin, low density liner film grade (market place), lb.	.290	.325	.28
Polypropylene, homopolymer grade (market price), lb.	.340	.345	.330
Polystyrene, general purpose grade (market price) lb.	.31	.32	.35
Polyvinyl chloride, pipe grade (market price) lb.	.285	.285	.300
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	.21	.21	.26
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	157.50	157.50	157.50
Sulphuric acid, 66%, commercial, tanks, ton	66.86	66.86	56.85
Titanium dioxide, anatase, reg., carlots lb.	.73	.73	.69
Xylene tanks, gal.	1.36	1.36	1.36
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	328.65	326.40	303.95
Lumber 2x2 pine, mbf, cl	321.60	323.60	304.60
Plywood, plyform, ¾", msf, cl	595.65	598.70	571.80
Plywood, ⅜", msf, cl	387.55	389.40	378.50
Cement, bulk, ton, tl	66.70	65.69	64.94
Sand, ton, cl	6.60	6.57	6.24
Ready-mix concrete, 3,000 psi/cu. yd., 15 cu. yd.	47.82	47.45	47.74
Crushed stone, 1½", ton, cl	7.98	7.98	7.63
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	0.83	0.83	0.81
Gypsum sheathing, ½"x1"x8", msf, tl	217.52	217.87	207.94
Brick, common, per thousand, tl	184.96	186.91	181.10
Asphalt paving, AC-20	158.08	162.69	175.36
Concrete sewer pipe, 12", prem. joint, per foot, cl	7.09	7.07	7.23
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf., bbl.	9.35	8.50	20.00
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	15.40	14.75	25.50
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	.580	.603	.830
Gasoline, 94 oct., reg., Chi., tank car, gal.	.540	.545	.833
Heating oil, No. 2, Chi., bulk, gal.	.405	.453	.747
Heating oil, No. 2, N.Y., bulk, gal.	.858	.878	.818
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.50
Jet kerosene, gal.	.360	.420	.670
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	.270	.290	.355
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	70.00	71.00	69.00
Steel, No. 1 hvy., dlvd., Chi., ton	70.00	73.00	62.00
Copper, No. 1, East wholesale buy, dlvd., lb.	.590	.585	.545
Copper, No. 2, East, wholesale, dlvd., lb.	.510	.505	.460
Brass, red, East, wholesale buy, dlvd., lb.	.550	.545	.505
Brass, yellow, East wholesale buy, dlvd., lb.	.300	.300	.325
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	.290	.340	.290
Alum., mixed clip., E., wholesale buy, dlvd., lb.	.320	.370	.320
Zinc, old, East, wholesale buy, dlvd., lb.	.150	.150	.140
Lead, clean solids, East, wholesale buy dlvd., lb.	.115	.108	.100
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	15.00	15.00	12.00
Paper, old corrug. box, dlr., N.Y., ton	12.00	12.00	10.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	.095	.100	.100
White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb.	.110	.120	.230

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

Midyear forecast



Compiled by Robert S. Reichard, executive editor

The bulls may not be running at Pamplona today, but the economy is showing surprising strength in this fifth year of expansion.

Not that anyone is in danger of being trampled in the mad dash to excess that has characterized earlier recoveries. In fact, some key sectors of the economy continue to suffer from depressed markets, tough competition from imports, and in ability to make price increases stick. For PMs, tough negotiation continues to bring rewards as prices remain under pressure, inflation is low, and expectations are for more of the same.

Here are highlights of *PW*'s mid-year economic report:

- Dr. Louis J. Paradiso, *PW*'s eminent prognosticator, says that the basic business trend will remain up at least into early 1987 and prices will remain level.
- The nation's big econometric models—Wharton, DRI, Merrill Lynch, and Chase--agree that forecasts for the economy should be revised upward.
- A new nationwide survey of PMs finds them flexing their muscles and demanding cost justification for virtually every price boost.
- The nation's top executives have raised their expectations for demand more than a percent and a half from just six months ago.
- Broad-gauge price indicators may not tell the whole story over the next few years.

Nobody has tamed this bull economy yet

The life of a forecaster isn't all that easy. (Who says it should be any easier than that of the purchasing manager looking to his future needs?) Dr. Louis J. Paradiso, *PW*'s eminent prognosticator, emphasizes that pinpoint forecasting is becoming a lot more difficult these days, because of big swings in the dollar and interest rates, the uncertainties of the budget and trade deficits, and possible effects of a tax reform bill.

Another problem stems from the wide variations in performance among various sectors. The electronics sector seems to be coming on strong again, while the smokestack industries such as steel are still fighting hard to stay even.

Another problem for forecasters is what Dr. Paradiso calls the "deteriorating quality of business statistics." Repeated GNP revisions make near-term projections a bit risky, he says. And this is being exacerbated by recent cost-cutting moves at the Commerce Department and the Bureau of Labor Statistics.

Expansion endures

The basic business trend is still up and is likely to stay that way through the end of this year and into early 1987. But Dr. Paradiso warns that not everything is coming up roses. Growth will be slow and relatively uneven and the inflation rate could well pick up a bit, as crude oil tags bottom out.

However, the veteran business analyst isn't very concerned about prices. As he puts it, "Remove the oil impact, and underlying price pressures will be much the same as they were before January."

With that in mind, here's a quick rundown of what *PW*'s economic consultant sees for the quarters immediately ahead:

Real growth: GNP will advance 2-3% at annual rate through mid-1987. The comparable figure for industrial production will edge out slightly lower at 2-2.5% annual pace.

Inflation: With oil prices stabilizing, finished producer prices will begin to advance again after the negative figures of the first half. Best bet is for an annual rate of 2.5-3% over the next four quarters. The GNP price deflator, which includes a large service component, should advance at a slightly higher 3% + rate.

Labor costs: Few problems are anticipated here. Pay rates will rise at only 2.5-3% at annual rate. But with productivity rising almost as fast, the increase in unit labor costs will be negligible—probably under 0.5% at annual rate.

Inventories: Current low stock/sales ratios will continue. Because sales will be edging up, some modest increases in inventory volume may occur, but *only* because the stock /sales ratio (day's supply) is at rock-bottom levels.

Capital spending: Non-residential fixed investment (in constant dollars) will advance only 2-2.5% over the next year or two. While positive, that's a far cry from the 19.5% increase in 1984 and the 9.5% increase in 1985.

Interest rates: They are probably as low as they are going to go. In fact, the prime rate might even inch up above 9% by early next year. The same goes for mortgage rates which seem to be bottoming out at 10%.

International trade: The weakening dollar will eventually have an impact on reducing the trade deficit. But don't expect too much. The red ink will still flow to the tune of about $120 billion (at annual rate) by the year's end.

The whole story

Looking in more detail, here are Dr. Paradiso's projections, observations, and comments on how he sees the economy shaping up in the next four quarters.

Economic growth: Real GNP will record moderate gains in the second half of 1986 and the first half of 1987. But the accent is on the word "moderate" because rates will fall short of levels needed to make a substantial dent in either the federal deficit or unemployment rates.

On the other hand, there are enough positive signs to assure continued momentum for expansion. These include relatively low interest rates, very modest inflation, and the weakening dollar *vis-a-vis* other major currencies.

Projected annual rates of real GNP growth

- 3Q 1986—2.5%
- 4Q 1986—3.0%
- 1Q 1987—2.0%
- 2Q 1987—3.0%
- All of 1986—3.0%

Industrial production will follow a similar pattern

- 3Q 1986—2.0%
- 4Q 1986—2.3%
- 1Q 1987—2.5%
- 2Q 1987—2.7%
- All of 1986—2.0%

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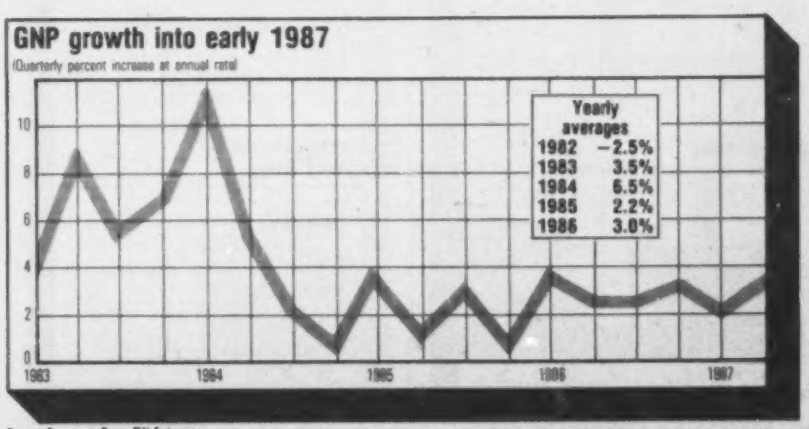


Source: Commerce Dept., PW Estimates

Price trends: Falling oil prices have definitely helped reduce the inflation rate. First quarter 1986 showed only a 2.5% increase in the GNP price deflator—significantly under the 4.1% in 1984 and 3.3% rate in 1985.

But with oil stabilizing, or even rising a bit, an annual rate of gain of 3% is projected for the second half of 1986, enough to push the annual average for 1986 to near 2.8%. Increases could also accelerate into the 3-3.5% range in early 1987.

As for producer finished goods, the declines of recent months seem to be over as oil bottoms out. The annual rates of increase over the next two quarters are 2.5% for 3Q and 2.8% for 4Q. This will balance out the declines in the first half and keep the yearly average near 1985 levels. And increases could come up to nearly 3% at annual rate in early 1987.

In 1985, consumer prices rose 3.8%, led by a big 6.7% jump in medical care costs. For the current year, a 2.5% increase is expected, but look for a rising trend following this pattern:
1Q—1%, 2Q—2%, 3Q—3.4%, and 4Q—3.6%.

By early 1987, the annual rate should be running about 4% as gasoline prices again approach the $1/gallon mark.

Labor costs: Wage rate boosts in nonfarm businesses have fallen sharply over the past two years in keeping with the slowing inflation rate. In both 1984 and 1985, wage rate gains were only 3.7%. In the first quarter of this year the figure dropped to 2.4% at annual rate.

Since prices will not rise significantly over the next four quarters and low rates of output will prevail in a number of industries, many workers will opt to forget about wage increases or even accept wage cuts rather than be laid off.

Wage rate increases may average only 2.4% in the third quarter of 1986 and 2.5% in the fourth quarter. In early 1987 the figures should climb to 2.8% in the 1Q and 3.0% in the 2Q.

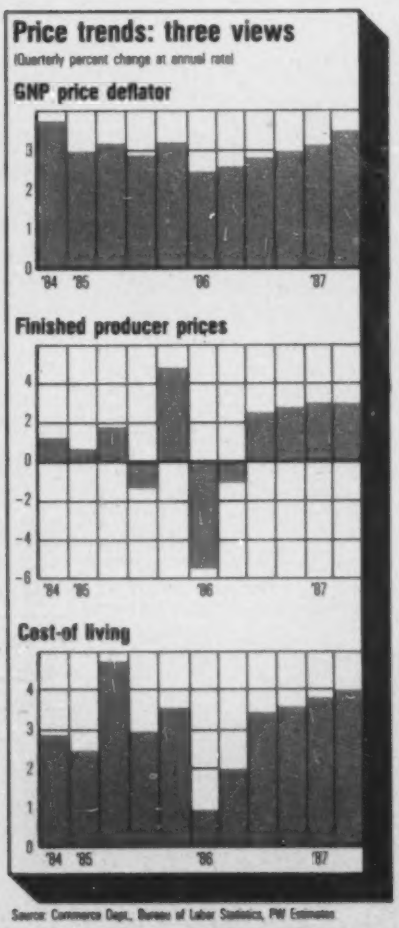
The productivity offset must also be factored in. In the first quarter of this year, the average rate of increase in efficiency was a respectable 3.8%, mainly due to the boost in output. But this may be overly optimistic since quarterly data are unreliable guides.

Modest productivity gains may be expected in the next 12 months as follows:
3Q 1986—2.3%, 4Q 1986—2.5%, 1Q 1987—2.5%, and 2Q 1987—2.6%.

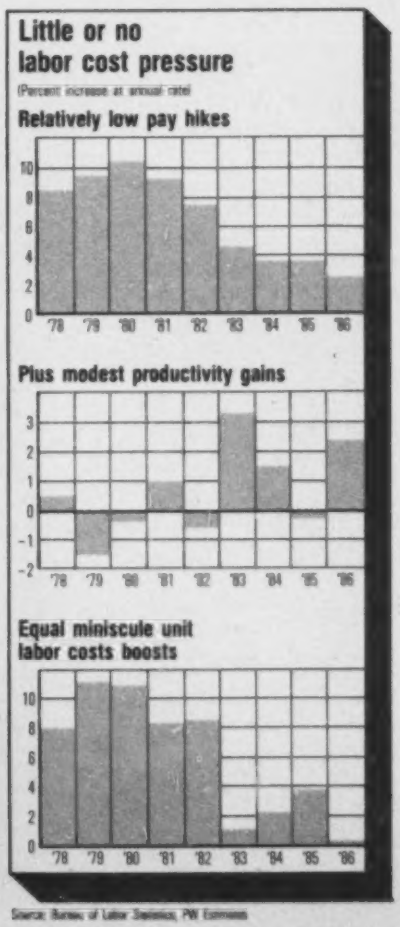
Superimpose these productivity advances on wage cost boosts and unit labor cost increases and it looks like little or no change will occur for the rest of this year, and only about 0.5% increase for the first half of 1987 at annual rate.

After mid-1987, however, these costs may accelerate as profits, productivity, and prices all rise moderately. This, in turn, will prompt workers to increase their wage demands.

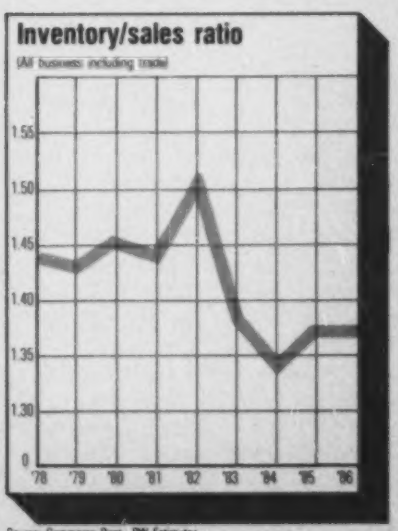
Inventories: Stocks are deliberately being kept lean by business firms. In manufacturing and trade, the ratio of inventories to sales held at only 1.37 in 1985 and early 1986. This is in contrast to the normal ratio of around 1.45 of earlier years. As



Source: Commerce Dept., Bureau of Labor Statistics, PW Estimates


Little or no
labor cost pressure
(Percent increase at annual rate)
Relatively low pay hikes
Plus modest productivity gains
Equal miniscule unit
labor costs boosts
'78 '79 '80 '81 '82 '83 '84 '85 '86

Source: Bureau of Labor Statistics, PW Estimates



Source: Commerce Dept., PW Estimates

sales pick up in the next 12 months, some moderate build-up of stocks may occur. But this probably won't happen before late 1986 or early 1987 when firms will finally move to avoid being caught short.

Capital investment and capacity: Non-residential investment, which rose 19.5% in real terms during 1984, showed only a 9.5% advance last year and actually declined fractionally over the latest quarter. The slowdown can be attributed to such factors as worries about near-term economic prospects, uncertainty on new tax legislation before Congress, and current relatively low factory utilization rates.

In any case, capital goods programs are now primarily aimed at renovating and modernizing rather than expansion. Also, the oil refining and many related industries are now pulling in their investment horns.

Outlook for all of 1986 is for the increase in capital goods outlays to settle around 2.0%. And next year's gain will probably hold around 3%.

What does this mean for capacity expansion? Very little. McGraw-Hill puts the gain at 2% for the current year. But even this may be too optimistic. On the other hand, this shouldn't create any supply problems because industrial production will also be rising at a relatively low 2-2.5% annual rate so operating rates are likely to remain low—certainly well under preferred levels.

Dr. Paradiso's own estimates here call for only about an 81% operating rate in the second half of the current year—with maybe another 1% increase in early 1987. While this is certainly a step in the right direction, it won't be enough to induce any significant increase in capital goods spending.

Spending: Civilian job totals rose by a substantial 4.2 million in 1984. But the increase dropped to only two million last year. And the 1986 increase should also be in the neighborhood of 2 million. Most of the increases last year were in the service sector—with manufacturing showing little or no change. Expect this trend to continue.

Meantime, the rate of unemployment dropped from 7.4% in 1984 to 7.1% last year. That's where it is now as new entries into the job market offset new job opportunities.

Interest rates: Rates declined sharply over the past 12 months. Three month Treasury yields dropped from over 8.5% in early 1985 to just under 6% last month. And other securities are following suit. As a result, the FRB rediscount rate has dropped to close to 6.5%, with the prime rate charged by banks off to 8.5%.

These low rates resulted from the sluggish loan demand by businesses as inventories were kept tight and expansion of capital goods programs were held down to essential needs.

As the economy strengthens in the coming 12 months, interest rates will show an upturn with the prime rising to 8.75% in 3Q 1986 and 9% by year end. It should hold there through 1Q 1987, but may rise to 9.25% by next spring as (1) loan demand expands to replenish inventories and (2) the volume of Treasury securities falls off a bit.

Housing: Mortgage rates, which follow the general interest rate trend, hold the key here. As might be expected, these rates have dropped sharply from the high of 15% a few years ago to near 10% currently. This, in turn, has induced homeowners to refinance their mortgages and has spurred many first time buyers to buy new homes.

New private housing starts, which totalled only 1.75 million in 1984 and 1.74 million last year, have jumped to almost two million at annual rate in recent months.

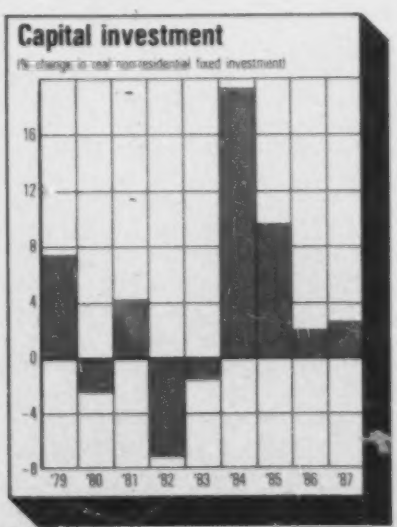
In 3Q 1986, mortgage rates are not likely to change much. But some subsequent advance to 10.5% is seen by late in the year. A further rise to near 11% by mid-1987 is also possible. This should cause housing starts to ease back into the 1.7-1.8 million unit range by sometime next year.

Consumer spending: In 1984, personal consumption increased 8.7% in current dollar terms and 4.4% in real terms. Last year, gains dropped to 6.6% and 3.3%, respectively. And in 1Q of this year, there was little change in all major categories of durable goods spending in current dollars—though outlays for services continued to show some gains.

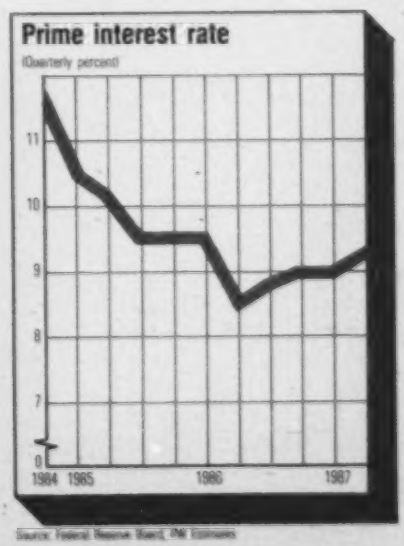
The savings rate, to a large extent, will determine future trends. Right now, the key ratio appears to be edging lower. After a high of 7.5% in 1981, the rate fell to 4.6% in 1985. That's very low compared to other industrialized countries.

In 4Q 1985, it dropped to 4.0%, but came back up to 4.3% in 1Q 1986. Some further increase will undoubtedly occur over the rest of the year and into 1987 as consumers repay outstanding debt.

Automobile sales seem to have peaked in 1985 at 11 million units (of which 8.2 were domestically produced). Expect 3Q sales to average



Source: Commerce Dept., PW Estimates



Source: Federal Reserve Board, PW Estimates

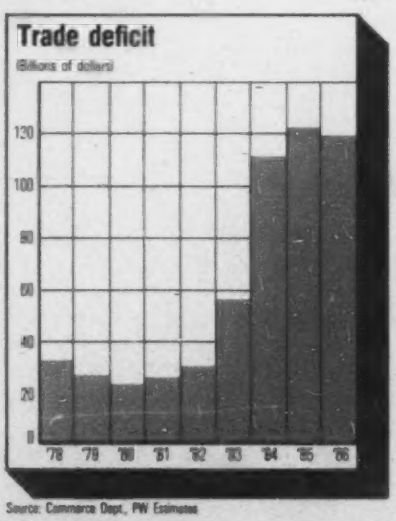
near 10 million units at annual rate, with the last quarter showing about 9.5 million total. And that level is likely to persist into early 1987.

Budget deficit: Red ink figures will continue to run at close to a $200 billion annual rate for the remainder of the year. On the other hand, the deficit may drop to a rate of $180 billion in the first half of 1987. The exact amount will depend on the completion of congressional action on both the budget cutting and tax reform.

Trade deficit: Merchandise exports (GNP basis) totalled $224 billion in 1984, while imports totalled $336 billion, resulting in a trade deficit of $112 billion. Last year, exports dropped to $219 billion while imports rose to $341 billion—pushing the gap to $122 billion. In fourth quarter 1985, the deficit expanded to $157 billion at annual rate, as imports rose to $373 billion and exports dropped further to $217 billion.

However, with a weakening dollar, exports rose to $223 billion at annual rate in early 1986, while imports fell to $366 billion, dropping the red ink figure to $144 billion.

Further improvement is likely in the last half of 1986 when deficits are put at $125 billion (3Q) and $120 billion (4Q). Though the dollar will stabilize, the trade deficit will continue to shrink—albeit slowly—falling to $115 billion in first quarter of 1987 and $100 billion in the second quarter. ***PW***



Source: Commerce Dept., PW Estimates

Thumbs up for buyers

A little optimism is going a long way with the nation's top corporate executives.

They say that demand will rise an average of about 5% this year. This is significantly higher than their 3.4% estimate made just six months ago. Moreover, 1986 inflation projections for manufactured goods have been toned down—from 2.7% six months ago to only 0.7% at latest report. That's what the latest McGraw-Hill survey of top executives is showing.

About the only disconcerting note is the fact that capital spending still looks rather lackluster. Overall plant and equipment outlays in real terms, for example, are expected to decline by about 4% this year—not all that much improvement over the 5.5% decline indicated when these same executives were queried last year.

In the price sphere, the aggregate 0.7% increase noted above is somewhat misleading because it is distorted by a 20% decline in petroleum product tags. Eliminate this and things look different. Significant price deceleration is only apparent in a few energy-related sectors such as chemicals and electric utilities.

The point to keep in mind is that downward adjustments have been relatively minor. This is certainly true in aggregate durable goods where the previous 2.7% price increase projected for 1986 has dropped only 0.3% (to 2.4%). And most of the individual durable goods lines continue to show increases in the 2-4% range.

Plant and equipment price boosts are expected to hold in a similar range. For example, average capital goods costs for all manufacturing sectors is put at just over 3% this year. But there are exceptions. In a few weak areas such as nonferrous metals and mining, only fractional (less than 0.5%) plant and equipment price advances are anticipated.

This kind of sector-by-sector variation also shows up in the demand sphere. Biggest boosts are seen for petroleum products where sharply lower prices are expected to stimulate a double-digit real sales advance in 1986. Above average gains are also seen for fabricated metals (7.6%), instruments (6.4%), and pulp and paper (6.0%).

On the other hand, some sectors are expected to decline—4.5% in the mining area and 1.6% in the case of iron and steel. Gas utilities demand is also slated to fall—probably reflecting the substitution of cheaper oil in many applications.

A few words are also in order on capital equipment spending trends. Part of the relatively disappointing projection can in all likelihood be traced to lower oil prices which have apparently discouraged new oil patch investment.

It's certainly hard to shrug off the fact that capital spending in this sector is targeted to drop by close to 25% this year.

But even if you eliminate the "petroleum effect," the capital spending picture remains far from buoyant. Note, for example, that total current dollar outlays (excluding oil) are expected to rise by only about 1% this year.

This pervading sluggishness in new investment outlays can in large part be attributed to today's relatively low 77% factory operating rate—a figure that is some 15% under the 90% + levels at which most manufacturers prefer to operate.

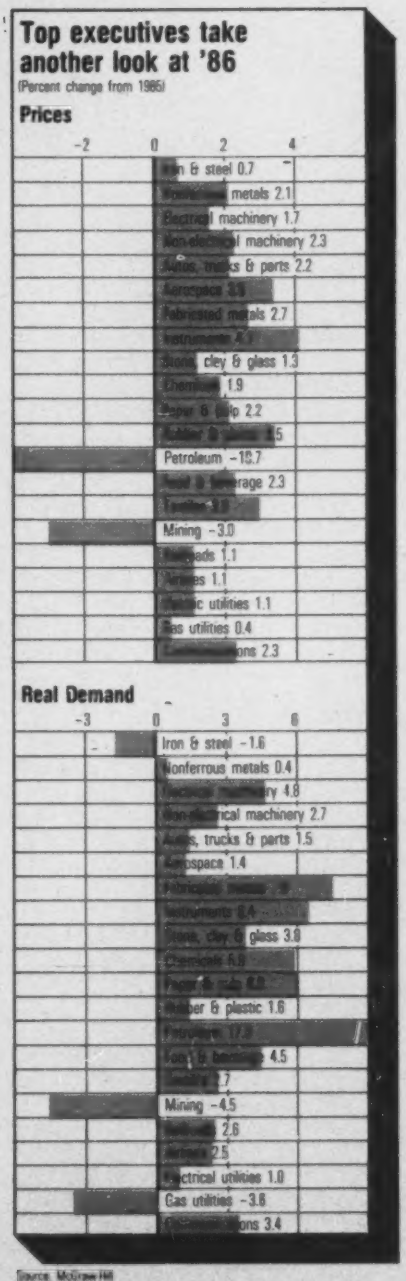
Given this hefty capacity excess, it should come as no surprise that American firms will allocate only 26% of their capital budgets for expansion in 1986—the lowest percentage on record. This, in turn, will slow down gains in real physical capacity—to less than 2% this year—sharply under last year's 4.8% jump.

Even this doesn't tell the whole story. Iron and steel capacity is likely to decline almost 7% as continued plant closings far exceed the marginal amount of new potential expected to come on stream.

On the other hand, 1987 could see some turnarounds in capacity—sur-

vey results show a fractional gain in steel. More important, aggregate manufacturing potential is projected to advance 3.7%—probably enough to keep overall operating rates from rising much above the 80% level.

Other things being equal, this should be low enough to assure another year of more-than-ample supplies—and thus continuation of one of the longest buyer's markets in post-war history. ***PW***



Source: McGraw-Hill

Prices will send mixed signals in '87

Broad-gauge price yardsticks could be somewhat misleading over the next few years. That's what a close look at price projections prepared exclusively for *PurchasingWorld* by Data Resources Inc. (DRI) reveals.

The problem is a greater-than-normal amount of variation—as individual sectors and product lines move all over the lot. For example, while overall industrial producer price averages could well show a small decline this year, many individual items will actually be posting modest gains.

This "mixed" pattern is not likely to change over the next few years. Note from the detailed table alongside that prices by the third quarter of 1987 will show changes varying from a 5% decline in middle distillates to an 8% increase in copper. And the same widely dispersed price pattern is likely to be repeated in 1988.

Here's what PMs can expect in key industrial procurement sectors:

- **Crude oil:** Stronger economic growth in 1987 and early 1988 should boost petroleum consumption and combine with some fuel switching in favor of oil to strengthen oil markets by the second half of 1988. The average refiner's acquisition price for foreign crude will rebound from a low of $15.67/bbl in the 2Q of 1987 to $18/bbl by the 4Q 1988.
- **Natural gas:** To maintain market share, the industry will be forced to orchestrate significant reductions in price. Producer quotes could skid 24% from 1Q 1986 to the 4Q 1987. A stronger economy will then ease competitive pressures and lead to a modest upturn in prices in 1988 when average quarterly advances of about 1.9% are predicted.
- **Electricity:** Declining utility construction activity and weak energy input costs will keep electricity prices extremely weak through the near term. The producer price index for electricity will post an average annual rate of decline of 0.4% over the 1986-88 period.
- **Steel:** By next year at this time, mill product lists should be up about 2.8% on average. And an additional 4.2% boost is seen for the next 12-month period. But there will be continued uneasiness in hard-hit subgroups such as oilfield products. Thus the price index for carbon oil well casing is projected to fall 13.1% this year and 4.8% in 1987 before edging up a modest 1.2% in 1988.
- **Nonferrous metals:** By 1987, metal producers will be able to take advantage of stronger end-market demand and an improved international trade position in some markets. The aggregate producer price index for primary nonprecious nonferrous metals should therefore advance at an average quarterly rate of 1.7% in 1987. But slower economic activity after that should limit the 1988 advance to only 0.7% for the entire 12-month period.
- **Industrial chemicals:** Near-term price escalation will be dominated by sharply lower hydrocarbon feedstock costs which, together with the competitive pressures from overcapacity, will lead to declines of 5.3% and 1.5% in prices for 1986 and 1987. On a more upbeat note, output will post an exceptional 4.9% average annual rate of increase over the 1986-88 period—reflecting growth in end-markets as well as the increasing use of synthetic materials in construction and other manufacturing industries.
- **Machinery and equipment:** As economic growth quickens and the flow of orders to domestic suppliers picks up, prices will increase more sharply. Producers will attempt to recover from several difficult, lean profit years. The aggregate price index for the sector should increase 3.1% in 1987 and a solid 4.3% in 1988—better than this year's 1.5% advance.
- **Construction materials:** Despite strong demand, price escalation will

be modest due to the restraining hand of lower costs. For example, the price of bituminous paving materials will drop 3.4% in 1986 and 1.6% in 1987—before moving up 3.4% in 1988 when oil prices begin to re-escalate. Similarly, Portland cement should only increase 0.1% this year and will speed up to 2.7% in both 1987 and 1988 as costs begin to climb a bit.

■ **Electronic components:** A leaner and perhaps wiser industry will have the opportunity to benefit from renewed strength. Price increases are seen for both 1987 and 1988. Measured annually, the aggregate price index will rise only 1.2% this year—but will then accelerate to 2.8% and 3.4% in 1987 and 1988.

■ **Industrial components:** Modest acceleration is seen for fasteners—as this year's estimated 1% decline (4Q 1985 to 4Q 1986) gives way to 6.3% and 3.8% increases in the two subsequent 12-month periods. The same is true of valves and fittings where this year's small 1% gain will grow to 3.7% and 4.4% in the two subsequent 12-month periods.

■ **Transportation services:** A firming of energy prices and a generally strong economy through 1987 and 1988 will provide the impetus for a slow acceleration in prices for most transportation-related industries. Overall, look for a 1.1% average boost in 1987 and a 5% jump in 1988—increases that should more than recoup this year's expected 2.1% drop-off. ***PW***

Product price trends into '88
(comparison of 3rd qtr. pricing)

Product	Percent change 86/85	87/86	88/87
Raw materials, energy			
Middle distillates	-38.5	-5.2	10.8
Industrial chemicals	- 0.3	1.1	4.1
Misc. chemicals	- 3.2	1.8	3.4
Paint materials	- 1.3	4.8	6.1
Supplies for manufacturing	0.1	3.0	4.1
Metals			
Steel mill products	- 3.7	2.8	4.2
Carbon steel strip (HR)	- 4.2	5.7	5.3
Carbon steel plates	-28.9	3.7	3.3
Foundry & forge products	1.3	3.7	4.0
Primary aluminum	3.2	6.6	2.7
Domestic copper	4.1	8.0	1.5
Lead	- 5.2	3.7	4.7
Titanium mill shapes	4.0	3.0	3.0
Components			
Pulp & paper products	- 0.5	1.0	4.1
Hardware	3.0	2.9	3.7
Misc. metal products	1.1	3.0	3.9
Instr. & meas. instruments	1.4	1.9	3.9
Electronic parts	1.4	3.0	3.3
Capacitors	- 0.6	2.0	3.9
Constr. products			
Plastic products	1.0	1.9	0.7
Concrete ingredients	1.1	3.4	3.0
Concrete products	1.0	2.1	3.9
Crude constr. products	0.4	4.0	5.3
Machinery			
Construction machinery	1.5	3.0	5.2
Pumps & compressors	0.9	3.4	3.2
Oil field and gas eqpt.	- 1.2	0.0	3.5

Source: Data Resources, Inc. Cost Forecasting Services

Econometric models

Revise forecasts—'upward,' say modelers

There's good news from the nation's big econometric forecasting models. Chase Econometric, DRI, Wharton Econometrics, and Merrill Lynch have each revised their projections to show significant improvements over forecasts made at the beginning of the year.

The new figures (detailed in *PW*'s latest semiannual rundown alongside) suggest substantially reduced inflation rates for both this year and next. Interest and unemployment rates will be slightly lower than previously anticipated.

Growth estimates also look better. While they haven't been beefed up all that much from those made at the beginning of the year, they support the belief that the economy is still in solid uptrend.

In fact, all four of the models monitored in the *PW* survey show growth acceleration in 1987—both in terms of real GNP and industrial production. That's no mean feat considering that 1987 will mark the fifth year of uninterrupted economic advance.

Why the rosier outlook now? Lower oil tags, of course, have played a major role in forcing reduction in price projections. So, too, have the relatively low wage boosts negotiated in recent labor contracts. Together those factors will probably bring the first decline in finished producer prices in over two decades.

Spokesmen for all four of these mathematically-oriented models also say they now have more confidence in their growth projections—as smaller price increases beef up real purchasing power and hence sales potential in both the consumer and producer goods sectors.

Another plus factor in the growth equation—according to these economic models—is a bigger-than-expected drop in the value of the dollar. This will begin to discourage imports and encourage exports and should increase overall domestic manufacturing activity.

Here's a closer look at what these computer-derived forecasts are suggesting:

■ **Growth:** The average GNP advance seen for 1986 isn't all that much better than in 1985 (2.7% versus 2.2%). But in 1987, the combined effects of lower inflation and a weaker dollar will push gains into the 3.6% range.

As for the more volatile industrial production index, a 1.7% prediction reflects lackluster auto and machinery demand—and the huge U.S. trade imbalance. But next year, a significant 4.2% average advance is seen as the lagged impact of the weaker dollar is felt and as machinery demand turns up again.

■ **Price trends:** As noted above, all key inflation yardsticks have been toned down. The best showing will

Econometric models

be in finished producer prices where a 1% decline is expected for the current year. But even the more inclusive cost-of-living index (COLA) and GNP price deflator—both of which contain a higher percentage of services—will rise by only about 2.5% this year. Some acceleration is anticipated for 1987, but it will be modest. Look for finished producer prices, the cost-of-living, and the GNP price deflator to advance by only about 2%, 3.5%, and 3%, respectively.

Real GNP (% change)	1986	1987
DRI	3.0	3.9
Chase	2.4	2.9
Wharton	2.8	4.4
Merrill Lynch	2.6	3.1
AVERAGE	**2.7**	**3.6**
Industrial production (% change)		
DRI	1.4	4.5
Chase	2.3	4.5
Wharton	1.6	4.7
Merrill Lynch	1.5	3.2
AVERAGE	**1.7**	**4.2**
GNP price deflator (% change)		
DRI	2.0	2.3
Chase	2.9	3.3
Wharton	2.8	3.1
Merrill Lynch	2.8	3.3
AVERAGE	**2.6**	**3.0**
Finished producer prices (% change)		
DRI	−1.1	1.3
Chase	−1.5	2.0
Wharton	−0.2	1.7
Merrill Lynch	−1.6	2.6
AVERAGE	**−0.9**	**1.9**
Consumer prices (% change)		
DRI	2.2	2.8
Chase	2.3	3.7
Wharton	2.7	3.8
Merrill Lynch	1.9	3.2
AVERAGE	**2.3**	**3.4**
Prime interest rate (%)		
DRI	8.9	8.8
Chase	8.7	9.2
Wharton	8.3	8.4
Merrill Lynch	8.5	8.3
AVERAGE	**8.6**	**8.7**
Unemployment rate (%)		
DRI	6.8	6.4
Chase	6.8	6.2
Wharton	6.8	6.3
Merrill Lynch	7.0	6.8
AVERAGE	**6.9**	**6.4**

■ **Interest rates:** The news is good according to the four big econometric models. Averages suggest very little change—with the prime rate continuing to hover in the relatively low 8.5-9% range—a level which is not expected to seriously impair consumer and business purchases.

■ **Unemployment:** A mixed picture here. This year the low growth rates envisioned suggest little change from the relatively high 7% jobless figure of the past few quarters. But the heftier industrial output advances seen for 1987 should more than offset increases in the labor force—and bring the overall jobless average down to about 6.5%.

Lending confidence to the above forecasts is the fact that all four models agree fairly closely on where things are headed. In the case of most price forecasts, for example, only about one percentage point separates high and low estimates.

To be sure, there's a bit more variation in the more volatile industrial production series for 1987. But even the 1.5% gap between high and low estimates is relatively narrow compared to the differences of opinion prevailing in previous years.

PW

Purchasers' view

PMs turn tough in negotiations, on prices

The nation's industrial buyers essentially confirm what economists and the big econometric models have been projecting: moderate growth and relatively subdued price increases. Strong first quarter GNP performance (3.7%) buoyed everyone's spirits more than a little.

A new nationwide *PurchasingWorld* survey indicates that demand gains for the responding companies will average only 4.7% (that's slightly under earlier projections). The typical price advance for procurement items should run about 3.1%.

As might be expected, projected price advances are somewhat under the 3.4% average forecasted at the beginning of this year. Despite this, close to half of the PMs surveyed expect some overall price acceleration in the second half of 1986.

The reasons given for the expected price upturn: A bottoming out of oil prices and some delayed effects of the close to 30% devaluation of the dollar over the past 18 months.

On the other hand, it should be emphasized that very few of the PMs queried expect sharp acceleration in prices. Cushioning any overall price pickup is the fact that some 13% of the respondents are still hopeful of further deceleration.

Continuing price moderation is also confirmed by a recent report by the NAPM Business Survey Committee. It finds that more than three out of five PMs expect price increases into the second half of 1986 to be slight. Some 90% expect these boosts to be selective rather than across-the-board—a percentage that has been exceeded only twice in the 23-year history of the survey.

The NAPM study also bolsters projections that economic gains in the near term will be selective. Only 46% of the surveyed PMs see the second half topping the first half. These results are almost the same as those obtained from the *PurchasingWorld* survey.

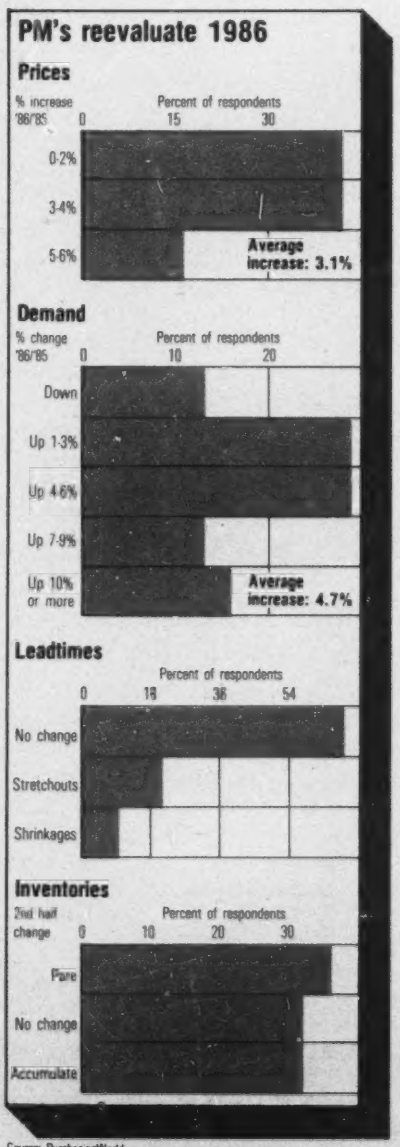
Another point regarding demand: PMs have not upgraded their own companies' demand forecasts since the beginning of the year, despite the stimulus provided by low interest rates and increased consumer purchasing power stemming from lower energy outlays.

But the current *PW* survey calling

for an average 4.7% demand gain for the year compares somewhat unfavorably with the 5.3% gain that these same firms were expecting at the beginning of the year.

One purchasing executive explains it this way: "I think we were far too optimistic in January. Only the ensuing decline in oil and interest rates is allowing us to attain our earlier projections. In short, we just lucked out."

But whether gains are under or above earlier estimates, most purchasing people agree that supplies will remain more than ample.



Source: PurchasingWorld

The survey also finds that despite continuing business gains, more PMs expect to pare their stocks in the second half (36%) than to add to them (32%). And virtually no one expects to do any major accumulation. In short, no one seems worried.

Only 20% of the survey respondents expect any leadtime stretchouts—and even this is mostly offset by the 70% who see no change and the 10% who expect improved vendor performance.

On the supply availability score, only one in ten expects possible tightness—and most of these concerns are due to fear of strikes rather than to any capacity restraints. In cases where buyers are concerned, they feel that increased imports could easily make up any temporary shortfall.

Purchasing executives are pulling out all stops to make 1986 a good purchasing year. Heading the list—and it is likely to keep vendors squirming—is the increasingly aggressive bargaining line. PMs are demanding cost justification for virtually every proposed price boost. Other tried and true methods include: 1) reducing the number of vendors to improve bargaining leverage, 2) seeking more long-term agreements with suppliers, and 3) demanding for just-in-time delivery.

"We can no longer afford the luxury of paying more than is absolutely necessary," says one Midwestern PM. "Cost efficiency is the key to survival in today's increasingly competitive markets—and what better place to start than in purchasing where each dollar saved goes directly to the bottom line." ***PW***

Steel buyers face shrinking global sources

Steel purchasers could become more dependent on new worldwide suppliers in the future as present suppliers decrease capacity. By 1995, the world's major steelmaking countries —Japan, the United States, and the European Economic Community—will lose at least 80 million metric tons of steelmaking capacity, according to *Crisis and Competition: The World Steel Industry 1986-2000*, a new long-term forecast from Chase Econometrics.

John Jacobson, director of the U.S. and World Steel Service for Chase, says that the Big Three steelmaking regions will close at least 25 integrated steel works, plus several mini-mills and even some specialty steelmakers. He sees the older steel mills in America, Europe, and even Japan being pushed slowly out of production by newer, more efficient mills in South Korea and Brazil, as well as by overall productivity enhancements due to the shift to continuous casting in their own countries. In contrast to the shrinking steel capacity in the Big Three, South Korea will add 14 million metric tons, and Brazil 12 million metric tons of capacity by 1995.

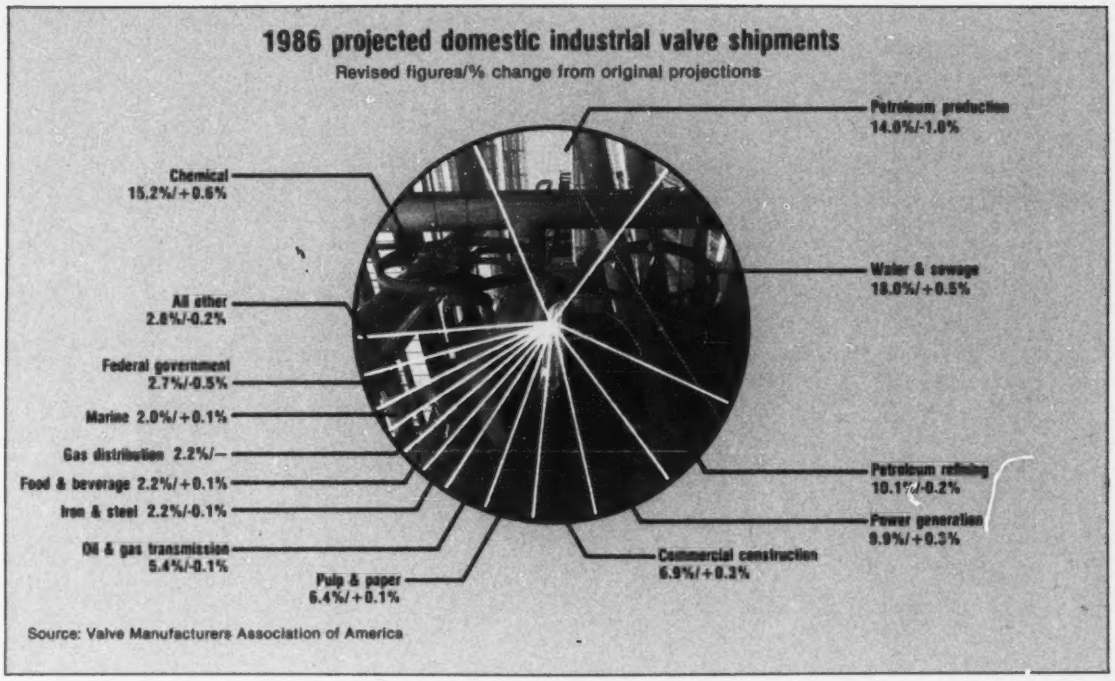
The U.S. steel industry is undergoing fundamental structural changes which take the form of management buyouts, greater employee ownership, joint ventures with foreign producers, and purchase of U.S. capacity by overseas investors. Four years of heavy financial losses have ravaged the balance sheets of major integrated steel companies and have limited their strategic options. Competition from lower cost imports and mini-mills further shrink the market share of U.S. integrated producers.

The U.S. is not the only one facing problems. Japan, once the model of steelmaking productivity, is facing maturing domestic steel markets, depressed export markets in the Middle East, and competition from South Korean exports in its regional and overseas markets.

"Rationalization of the steel industry in the Big Three, where capacity utilization has averaged less than 65% since 1980, is long overdue," says Jacobson.

Crisis and Competition is a three-volume forecast of steel production and marketing in 25 regions and countries. **Circle 166** ***PW***

Imports, oil patch slump trouble valve industry



Valve manufacturers expect a drop in petroleum industry demand to be offset by other key markets. Percentage breakdown figures showing end user markets issued at the end of 1985 were revised to reflect current market conditions.

With one of its major markets in trouble, the U.S. valve industry is looking to other market segments to take up the slack. Overcapacity is still a nagging problem.

Thomas F. Dillon, C.P.M., senior editor

Despite some problems, U.S. valve manufacturing executives aren't weeping about business prospects this year.

Dr. Malcolm E. O'Hagan, vice president of the Valve Manufacturers Association of America (VMA), informally polled the attendees of a recent meeting of the Valve Manufacturers Association of America on their outlook for the balance of 1986. More than half of the CEOs said they expect business to improve this year, 30% said it would remain the same, and about 20% said it would worsen.

To a casual industry observer, these results might seem surprising. One of the industry's major customers, the oil and gas industry, is severely curtailing production and is cutting back expansion plans. Luckily, the valve market is varied—when one is down, others usually take up the slack.

The same low petroleum prices that have curtailed production in the oil patch have translated into cheaper feedstock for the chemical industry, another major user of industrial valves.

As interest rates decline, the demand for housing is transformed into suburban neighborhoods. Water and sewer lines and treatment plants must be constructed—and sewage and water treatment businesses are the valve industry's biggest customers.

For these and other reasons, the VMA recently revised its forecast for 1986. Instead of the slight decrease in dollar value of shipments predicted just a few months ago, the VMA now projects a 1% increase for 1986.

Yet the industry is not without its problems. It is currently operating

at 62% of capacity, approximately the same as in the past few years but far below the rate of the late 1970s and early 1980s. In contrast, total U.S. industry is now running at about 79% of capacity.

Dan DeSantis, president of Jamesbury Corp., Worcester, MA, says that until capital equipment expenditures increase, the valve industry will not change materially. He is hopeful that the current low interest and inflation rates, and low energy costs will lead to increased capital expenditures in such important valve markets as chemicals, petrochemicals, pulp and paper, and power.

Meanwhile, the industry is undergoing a wave of mergers, consolidations, buy-outs, and joint ventures all in an effort to become leaner and to sop up excess capacity. In the past 18 months, says Edwin J. Bonner, chairman of the VMA and president of Leslie Co., Parsipanny, NJ, over 40% of the VMA member companies have changed hands. Many companies are establishing overseas facilities, partly to cut costs and partly to comply with domestic content laws being enforced in overseas markets.

The industry is also facing increasingly tough import competition. In 1985, the value of imports increased 30% to $758.7 million while exports declined 10% to $640.4 million. This was the first time since the VMA began keeping such records that the U.S. was a net importer of valves.

The leading sources of imports were Japan, West Germany, Canada, and Taiwan—all except Canada increased their valve exports to this country in 1985. Imports from Japan (the major overseas source) were up almost 38% over 1984, reaching $330 million. Imports from Taiwan were up 38% to almost $110 million while Korea posted a 66% increase. West Germany experienced a 17% boost. Canadian imports dropped 12% to about $160 million.

On the export side, shipments to Canada increased 11% in 1985 (to $40 million) over 1984. Shipments to Japan rose 13% (to $70 million),

Photo courtesy of Crane Valve Division

Petroleum production is still a major market for U.S. valve manufacturers. The flow of fluids at temperatures as high as 1100 F is controlled by Crane's steel valves used in this refinery.

Valve industry trends

New materials, new manufacturing methods, and the modification of standard valves for special applications are changing the industry. Here are some examples:

- In an effort to cut costs, says Lew Iadorola, marketing manager at Worcester Controls, customers have increased the demand for butterfly valves. The butterfly valve provides a lot of flow capacity for its size and weight and is therefore cost-effective. It does have sealing and pressure-temperature limitations, but the majority of valves that are purchased are for relatively low pressure, low temperature applications that can be handled by butterfly valves. **Circle 145**
- Worcester Controls has also developed a line of High-per Mizer ball valves, available in both resilient and metal seated versions so the seating materials can be matched to service requirements. The metal-seated version offers superior abrasion resistance and the ability to handle high temperature and pressure applications. The resilient seated version offers lower operating torques, a high degree of corrosion compatibility, and ability to offer bubble-tight sealing at elevated pressures. The resilient sealing, called High-per Fill, is a blend of poly ether ether ketone, glass, and graphite fibers. **Circle 146**
- Automatic Valve Corp., Novi, MI, recently introduced a series of four-way pneumatic valves molded from VALOX engineering thermoplastic. The material provides high flow capacity, corrosion resistance, with half the weight of a metal valve. Unlike conventional valves that require the machining of separate parts, the components of the new valve are injection molded, improving product consistency and reducing costs by eliminating secondary operations. **Circle 150**
- Powdered metal technology is now being used by several major valve manufacturers. The major advantage to using powdered metal is cost reduction through the elimination of machining operations and waste material.
- DynaQuip Controls Inc., a St. Louis ball valve manufacturer, recently modified a valve for a manufacturer of commercial french fryers, the kind used in food chains. These fryers cannot use valves made of copper alloy because of food contamination so they usually use steel ball valves which are designed for high pressure applications—they greatly exceed the requirements for the fryers. Dynaquip designed a valve made of cast iron instead of steel and customized it in other ways to fit the application exactly. **Circle 161**

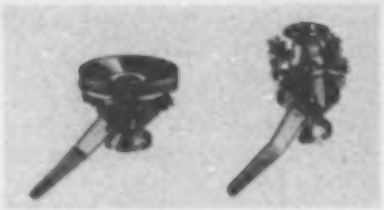
and exports to Switzerland rose 44% (to $26 million). At the same time, other markets eroded: Mexico (down 7%), United Kingdom (down 4%), Saudi Arabia (down 39%), and South Korea (down 40%). Because of the recent decline in the value of the dollar, the VMA is predicting a 4% drop in imports this year. The weaker dollar should also make U.S. valves more competitive in the world market. Import competition has caused some U.S. manufacturers to abandon lower-priced, commodity-type valves in favor of the higher-priced specialty valves.

Ray Baker, president of Crane Valve Division, the largest valve manufacturer in the U.S., sees today's market as "one of the great opportunities for the U.S. valve industry" because it is forcing companies to lower costs, improve operations, and provide better customer service. Baker says that U.S. valve makers have been lax about providing service in particulars such as responding to inquiries, providing products off-the-shelf, and making on-time deliveries. This is where U.S. manufacturers can combat imports, he explains. Watch for more manufacturing automation, quality control programs, and safety programs in the industry to improve customer service.

Service is especially important today because many customers are also short of work. When they get jobs they want to complete it as quickly as possible—they cannot afford to shop around the world to trim the last nickel off the price.

The U.S. valve industry is having its problems. But today it is a much leaner, more cost and quality conscious industry that is rededicating itself to improving service to its customers. Who will survive? Lew Iadarola of Worcester Controls answers that question this way: "It is going to be a tough year competitively, but the companies that have always been able to survive in this kind of environment will persevere and grow." Ray Baker of Crane Valve Div. may just be right when he calls today's market "one of the great opportunities for the U.S. valve industry." **PW**

Check it out



Designed for use in particulate asceptic packaging lines, these flush bottom and two-way ball valves feature steam tracing around the seal areas. Fully-encapsulated seals provide reduction in product entrapment, while full flow ports eliminate product flow restrictions. The valves can be used for a variety of applications, ranging from yogurt processing to asceptic-packaged chili. *Lee Productions, Inc.* **Circle 131**

When placed in a manifold block, this valve operates as an angle check valve with good leakage control. When combined with any simple bleed valving for pilot control, the side-ported valve provides check valve functions and can permit full flow in the reverse direction. Applications include regeneration circuits, clamping circuits, pump unloading, and on-off control applications. By varying the bleed valving and line connections, a wide variety of system applications is possible where it is desirable to control large amounts of energy with small amounts of input. *Kepner Products Co.* **Circle 132**

This line of steam pressure regulating valves was developed for reduction, backpressure, and differential pressure regulation. The valves feature piston cylinders and piston rings coated with a super-hard, low-friction material. *Union Flonetics.* **Circle 135**

Type "A" air-operated pinch valves open and close by air or hydraulic pressure applied on a resilient seat within the valve housing. Featuring a built-in actuator, the valves will close drop tight on entrapped solids. They provide throttling and control capabilities for slurries, corrosive materials, and pneumatic conveying systems. *Red Valve Co.* **Circle 133**

This bronze, two-piece safety exhaust valve for compressed air service features DynaQuip's "Zero Mechanical State" venting action. Residual air is vented through a bleed hole when the valve is turned off. This automatically depressurizes any air-driven equipment attached to the valves and insures a safe environment for service and repair operations. *DynaQuip Controls.* **Circle 144**